Contract Report 597

Continued Operation of a Raingage Network for the Imperial Valley Water Authority Year Three: September 1994 - August 1995

by
Steven E. Hollinger, Office of Applied Climatology
and Randy A. Peppier, Office of Special Programs

Prepared for the
Imperial Valley Water Authority

March 1996

Illinois State Water Survey
Atmospheric Sciences Division
Champaign, Illinois

A Division of the Illinois Department of Natural Resources

CONTINUED OPERATION OF A RAINGAGE NETWORK FOR THE IMPERIAL VALLEY WATER AUTHORITY YEAR THREE: SEPTEMBER 1994 - AUGUST 1995

Steven E. Hollinger

and

Randy A. Peppier

REPORT

to

Imperial Valley Water Authority

on Contract

Imperial Valley 223

Steven E. Hollinger and Randy A. Peppier
Co-Principal Investigators

Atmospheric Sciences Division
Illinois State Water Survey
2204 Griffith Drive
Champaign, Illinois 61820-7495

March 1996

This report was printed on recycled and recyclable papers.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

CONTINUED OPERATION OF A RAINGAGE NETWORK FOR THE IMPERIAL VALLEY WATER AUTHORITY YEAR THREE: SEPTEMBER 1994 - AUGUST 1995

1. INTRODUCTION

Regional precipitation variability affects irrigation water demand on an aquifer, the recharge of the aquifer, and the density of wells and irrigation systems required for agriculture and water supplies. These factors all impact any required water withdrawal allocations from an aquifer. Therefore, knowledge of the precipitation variability over an extensively irrigated region, such as the area within the Imperial Valley Water Authority (IVWA), should provide useful information for the management of ground-water resources in that region.

At present, the measurement of precipitation is best accomplished by deployment of a network of raingages of sufficient areal density for a long period of time. A relatively dense raingage spacing is needed to capture both summertime convection, which can be quite variable, and more widespread wintertime events. A relatively long time period is necessary to capture short-term climatological shifts such as abnormally wet or dry periods and even normal periods. Such networks provide the data necessary to understand the variability of precipitation patterns both spatially and temporally, and thus the spatial and temporal variations in the recharge of the soil and ground water within the network area. The data help identify the extent of areas susceptible to heavy irrigation water use and/or areas of poor recharge. Combined with ground-water data, these precipitation data can provide the inputs needed for estimates of recharge to the ground-water resources within the network area.

During the last 40 years, the Illinois State Water Survey (ISWS) has operated raingage networks of varying areal gage densities over various time periods in both rural and urban areas. Sampling requirements, as determined from these past studies (e.g., Huff, 1970), indicate that a 2- to 3-mile gridded raingage spacing should be adequate for properly capturing convective precipitation systems (spring and summer), while a 6-mile spacing is adequate for more widespread precipitation-producing systems (fall and winter). Compromises within these ranges are acceptable in a rural setting. The weighing-bucket raingage, used by the National Weather Service, provides precise and reliable precipitation measurements. Given the size of the IVWA area and the above spacing guidelines, a gridded, 25-site raingage network with approximately 5 miles between gages was proposed.

The ISWS itself has a long-term interest in precipitation measurement and related research, and has performed precipitation research in areas such as hydrology, weather modification, and urban influences on precipitation climate. The data collected by a raingage network such as the IVWA Network would be used in similar research.

An agreement was reached between the IVWA and the ISWS in spring 1992, and the 25-site network was deployed in late August 1992. Results of the first (September 1992-August 1993) and second (September 1993-August 1994) years of network operation are reported in Peppier and Hollinger (1994, 1995). This report documents the operation, maintenance, data reduction and analysis, and management of the network during its third

year of operation (September 1994-August 1995). Data showing the differences among the first three years of operation are included. Several appendices document the actual raingage sites, instructions for raingage technicians, raingage maintenance, unusually large precipitation events recorded during the year, monthly precipitation variability at each of the sites, and total rainfall during each storm period in the first three years of operation.

2. NETWORK DESIGN

Figure 1 shows the layout of the raingage network as designed in the summer of 1992. Descriptions of construction of the IVWA Network and the type and setup of the weighing-bucket raingages used to collect precipitation are given in Peppier and Hollinger (1994). Appendix I gives complete site description information for each network raingage location as of August 31, 1995.

3. NETWORK OPERATION AND MAINTENANCE

During the third year of operation, local observers continued to perform weekly raingage maintenance at 11 sites, while the other 14 raingages were handled by a retired ISWS scientist living in Champaign. Each raingage was serviced every 6 to 11 days. Servicing included removing and replacing the current chart, checking the felt-tipped pen to make sure it was inking properly, dumping the bucket contents from approximately April through October, and noting any unusual problems, including chart-drive malfunction, gage imbalance or instability, vandalism, unauthorized movement of the gage, etc. During the warm season, evaporation shields were fitted into the collection orifice above the bucket to minimize evaporation. During the cold season, a 1-quart charge of antifreeze was added to each raingage bucket so that any frozen precipitation collected would be melted to allow a proper weight reading. Approximately once a week the local observers and the ISWS scientist mailed and/or delivered a complete set of 25 charts to the ISWS. Refer to Appendix II for a complete description of servicing instructions for raingage observers.

As needed, the Champaign-based scientist visited the network to perform maintenance and repairs. This usually consisted of a site assessment of an observer-noted problem and the determination of a solution. Because most problems pertained to the chart drives, the usual solution was to adjust or replace the chart drive. If replaced, the defective chart drive was cleaned and readied for reuse at the ISWS. Other typical problems, mentioned above, were also solved on these trips. Appendix III documents non-routine maintenance or repairs, including any site relocations, for the 25 raingages during year three.

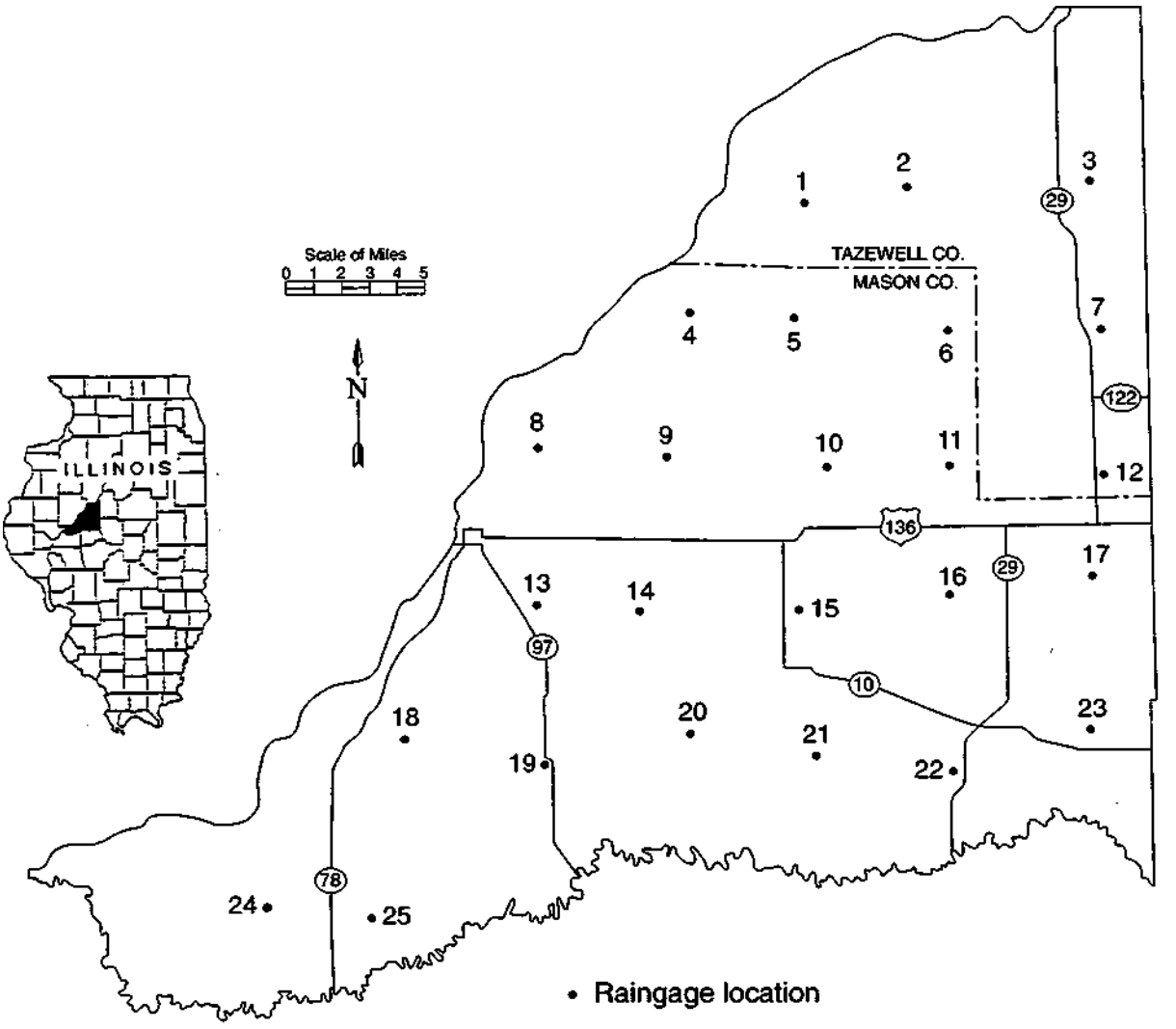


Figure 1. Configuration of the 25-site Imperial Valley Water Authority raingage network

4. DATA REDUCTION

Data reduction activities during year three of network operation included those performed during years one and two. Please see Peppier and Hollinger (1994) for complete details on these tasks. In addition, the number of storm events and storm days at each station were computed. A storm day was defined as any day that measurable precipitation was recorded at a given station. Precipitation events were defined by the first hour that rainfall was recorded and continued through each consecutive hour that precipitation occurred. If there was a break of at least one hour in precipitation, the next hour with measured precipitation was considered a new rain event.

Network storm periods were also defined. A storm period is defined as a precipitation event separated from preceding and succeeding events across the network by approximately three hours.

5. DATA ANALYSIS AND METHODOLOGIES

Table 1 contains monthly and annual (September 1994-August 1995) precipitation amounts for each site in the IVWA Network. Corresponding analyses are contained in Figure 2 (annual) and Figures 3-8 (monthly). Figure 9 shows a time line of average network precipitation during the September-August period for each year (1992-1993, 1993-1994, 1994-1995) and Figure 10 for the combined three-year period.

Table 1 and Figure 2 show that totals for the year ranged from 48.68 inches at Site #19 just north of Kilbourne to 34.59 inches at Site #6 in northeast Mason County. (Site #19 recorded the largest amount of precipitation during the first two years of network operation as well.) Eleven sites reported more than 40 inches for the 12-month period. The network average was 39.42 inches, 1.21 inches less than the 1993-1994 average and 16.13 inches less than the 1992-1993 average. Compared to 1961-1990 normal values at the Havana and Mason City National Weather Service cooperative stations (37.24 and 35.08 inches, respectively), the third-year average was still 2 to 4 inches above what would be considered normal for the region.

Monthly analyses in Figures 3-8 (see Table 1 for specific amounts) show that May 1995 (Figure 7a) was by far the wettest month of the year (10.33-inch network average), followed by April 1995 (Figure 6b, 4.87-inch average), November 1994 (Figure 4a, 3.37-inch average), and October 1994 (Figure 3b, 3.34-inch average). Rainfall in May was heaviest in the southern portion of the region (Figure 7a), while in April the largest precipitation amounts were reported in the northern portion (Figure 6b). The precipitation gradient across the region in both October (Figure 3b) and November (Figure 4a) was generally from west to east, with the highest rainfall occurring in the west.

September 1994 and February and March 1995 were the driest months, with each recording less than 2 inches. During September, the driest portion of the region was in the west (Figure 3a). In February the entire region received less than 1 inch of precipitation (Figure 5b), and in March there was a southeast to northwest gradient of precipitation across the region (Figure 6a).

Table 1. Monthly and Year Three Precipitation Amounts for September 1994 to August 1995 (inches)

	Month												
Site#	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Mean*
1	1.40	3.01	3.71	2.32	1.77	0.53	1.67	5.08	9.95	2.23	3.53	2.22	37.42
2	1.72	3.52	3.89	2.69	3.32	0.64	2.09	5.47	9.88	4.14	3.13	2.35	42.84
3	1.67	2.86	3.05	2.57	2.55	0.45	1.81	5.06	8.39	1.79	2.43	2.25	34.84
4	1.17	3.67	3.66	2.38	2.89	0.51	1.50	5.45	9.16	1.48	2.85	2.28	37.00
5	1.31	3.20	3.25	2.45	2.48	0.52	1.70	5.34	9.53	2.14	2.64	2.50	37.06
6	1.71	3.07	2.75	2.45	2.47	0.46	1.86	5.61	8.09	2.31	1.84	1.97	34.59
7	2.59	2.87	2.94	2.52	2.82	0.60	1.98	5.24	8.38	2.03	2.30	3.27	37.54
8	0.98	3.15	3.35	2.15	2.59	0.55	1.63	5.13	10.00	0.96	2.66	2.25	35.40
9	1.21	3.48	3.30	2.26	2.82	0.63	1.70	5.04	10.09	1.94	3.13	2.20	37.80
10	1.37	3.48	2.98	2.54	2.66	0.62	1.77	5.19	9.99	1.60	2.49	2.12	36.81
11	1.74	2.96	2.94	2.28	2.43	0.61	2.06	5.23	8.77	1.86	2.26	1.77	34.91
12	2.51	2.92	3.13	2.39	3.02	0.66	2.25	5.63	9.50	2.26	3.75	4.34	42.36
13	1.54	3.69	3.33	2.30.	3.02	0.67	1.79	5.08	11.69	2.61	2.87	2.32	40.91
14	1.11	3.62	2.69	2.37	2.95	0.61	1.52	4.37	11.18	3.03	2.27	3.56	39.28
15	1.50	3.72	3.06	2.22	3.30	0.66	1.85	4.93	11.09	2.73	0.78	2.44	32.28
16	1.93	2.67	3.32	2.25	2.97	0.54	2.25	4.85	9.78	4.09	2.65	3.01	40.31
17	1.78	2.77	3.39	2.09	3.30	0.57	2.26	4.93	10.71	3.58	2.80	3.98	42.16
18	1.03	3.88	3.87	2.43	2.86	0.63	1.85	4.66	13.17	2.98	3.57	2.54	43.47
19	1.19	4.47	3.78	2.49	4.14	0.80	2.32	4.81	12.94	4.80	3.24	3.70	48.68
20	1.19	3.66	3.15	2.11	3.04	0.75	1.90	4.25	10.93	2.50	3.27	3.44	40.19
21	1.40	3.25	3.38	1.96	3.14	0.51	2.49	4.45	10.40	3.50	2.74	3.15	40.37
22	2.12	2.93	3.68	1.97	2.82	0.59	2.20	3.86	11.88	4.85	2.15	4.39	43.44
23	1.49	2.54	3.40	2.04	3.10	0.47	2.23	3.85	10.74	2.48	2.44	4.55	39.33
24	0.87	4.07	3.81	2.05	2.99	0.74	1.85	4.10	11.57	2.44	4.13	2.80	41.42
25	0.82	3.93	4.55	2.05	3.00	0.89	1.79	4.22	10.56	1.99	2.36	2.99	39.15
Avg	1.49	3.34	3.37	2.29	2.90	0.61	1.93	4.87	10.33	2.65	2.73	2.90	39.42

Rainfall gradients during the rest of the year were: northwest to southeast in January (Figure 5a, highest in the north); southeast to northwest in June (Figure 7b, highest in the southeast); west to east in July (Figure 8a, highest in the west); southeast to northwest in August (Figure 8b, highest in the southeast); and nearly uniform rainfall during December (Figure 4b). August shows the strongest gradient of rainfall across the region.

Above normal rainfall in April and May across the network resulted in the greatest spring (March-May) rainfall total in the three years of network operation (Table 2). During the spring of 1995 an average of 40 rain events occurred across the region on 29 days. In the springs of 1993 and 1994 there were 31 and 23 rain days, respectively. The difference between the 1993 and 1995 springs was the size of the individual rain events. In 1995 each rain day received an average of 0.60 inches, and each rain event produced an average of 0.43 inches, while in 1993 there were more storms and rain days, but each rain event averaged only 0.24 inches and each rain day 0.38 inches.

Autumn and summer of the third year of network operation were the driest of the three years. During September, October, and November of 1994, an average of 8.20 inches of rain was received across the region. This rain came in an average of 24 rain events over an average of 19 days. Autumn of 1994 had the fewest rain days and events of the three

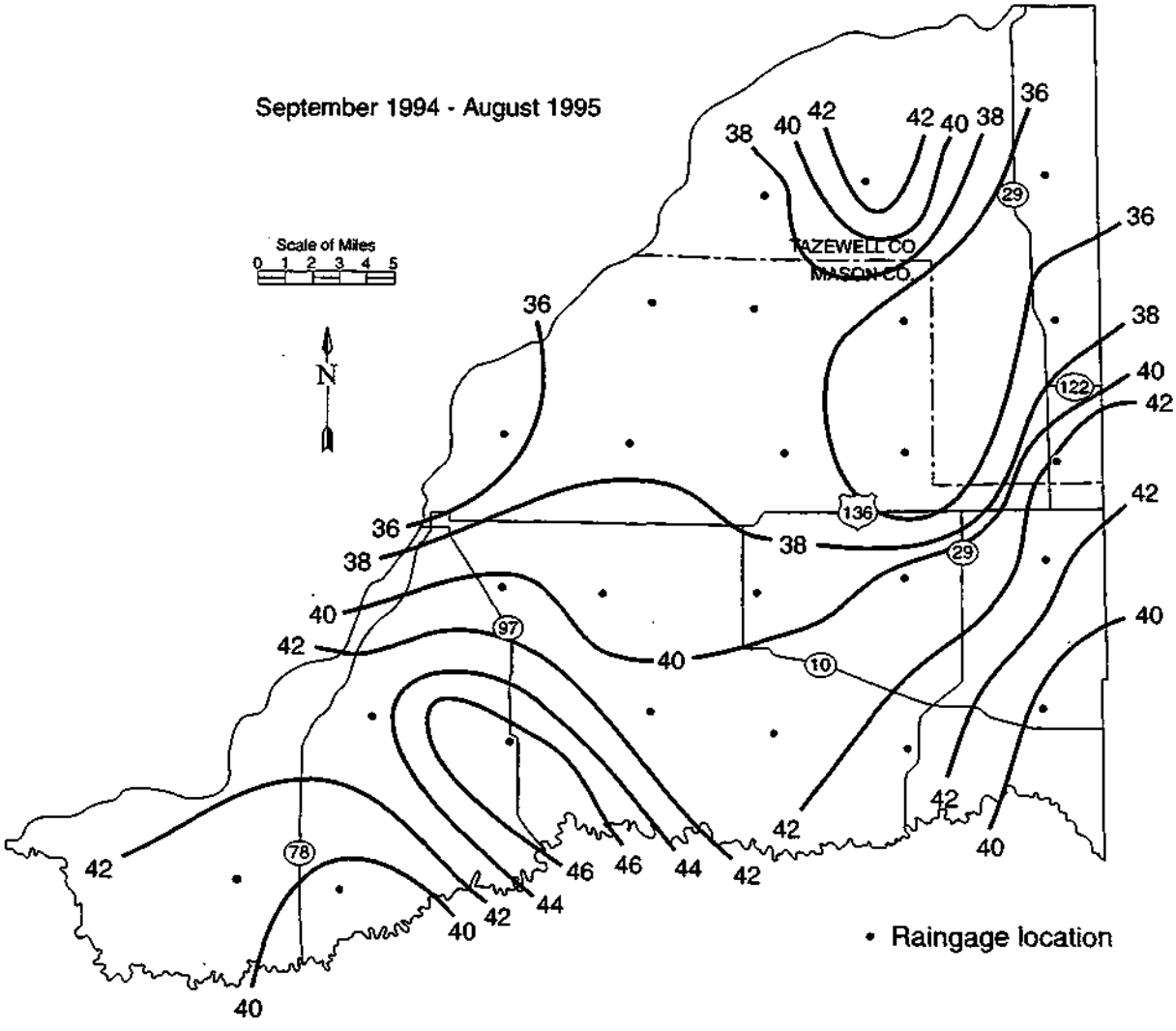


Figure 2. Precipitation pattern (inches) for September 1994-August 1995

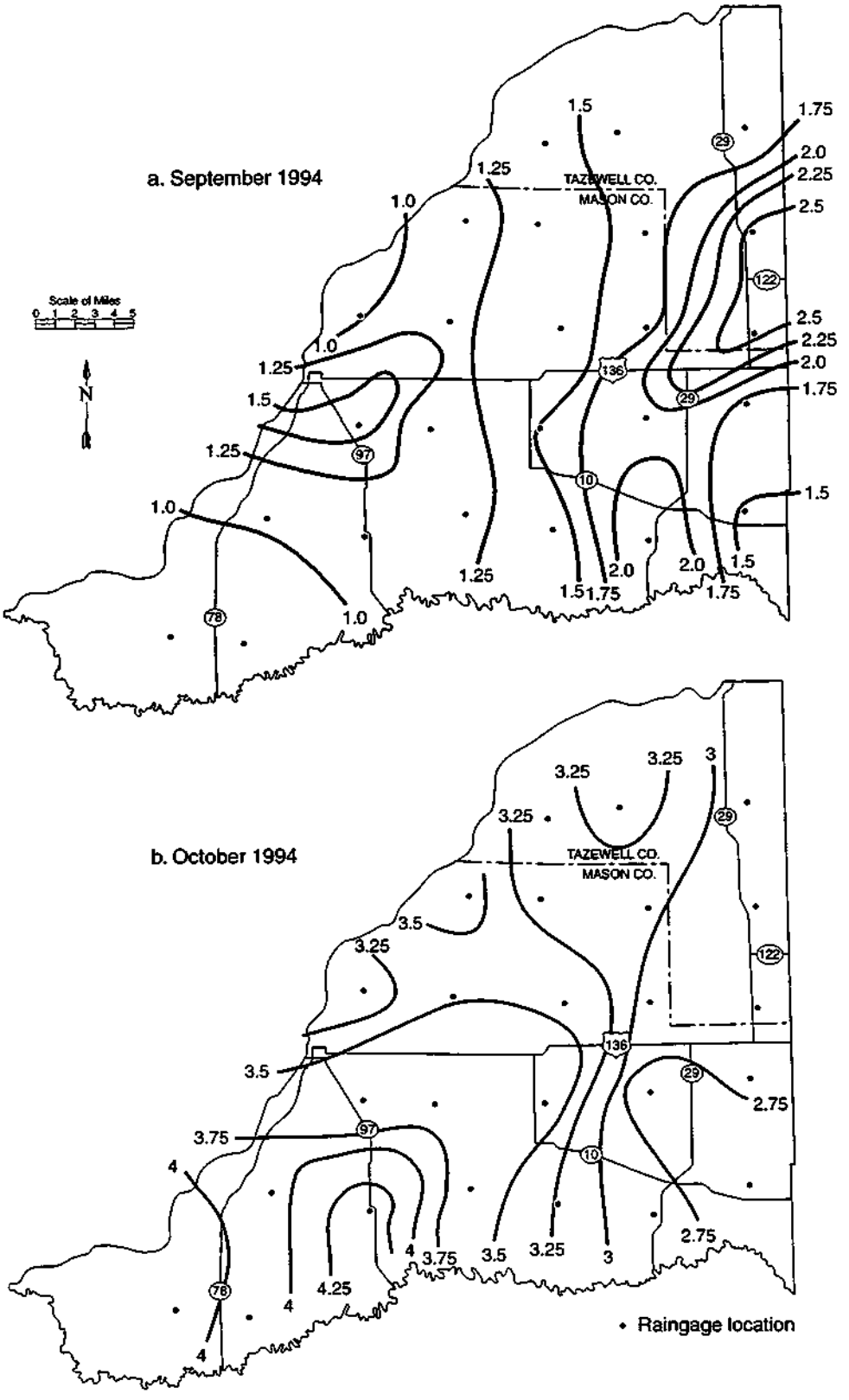


Figure 3. Precipitation pattern (inches) for September 1994 (a), October 1994 (b)

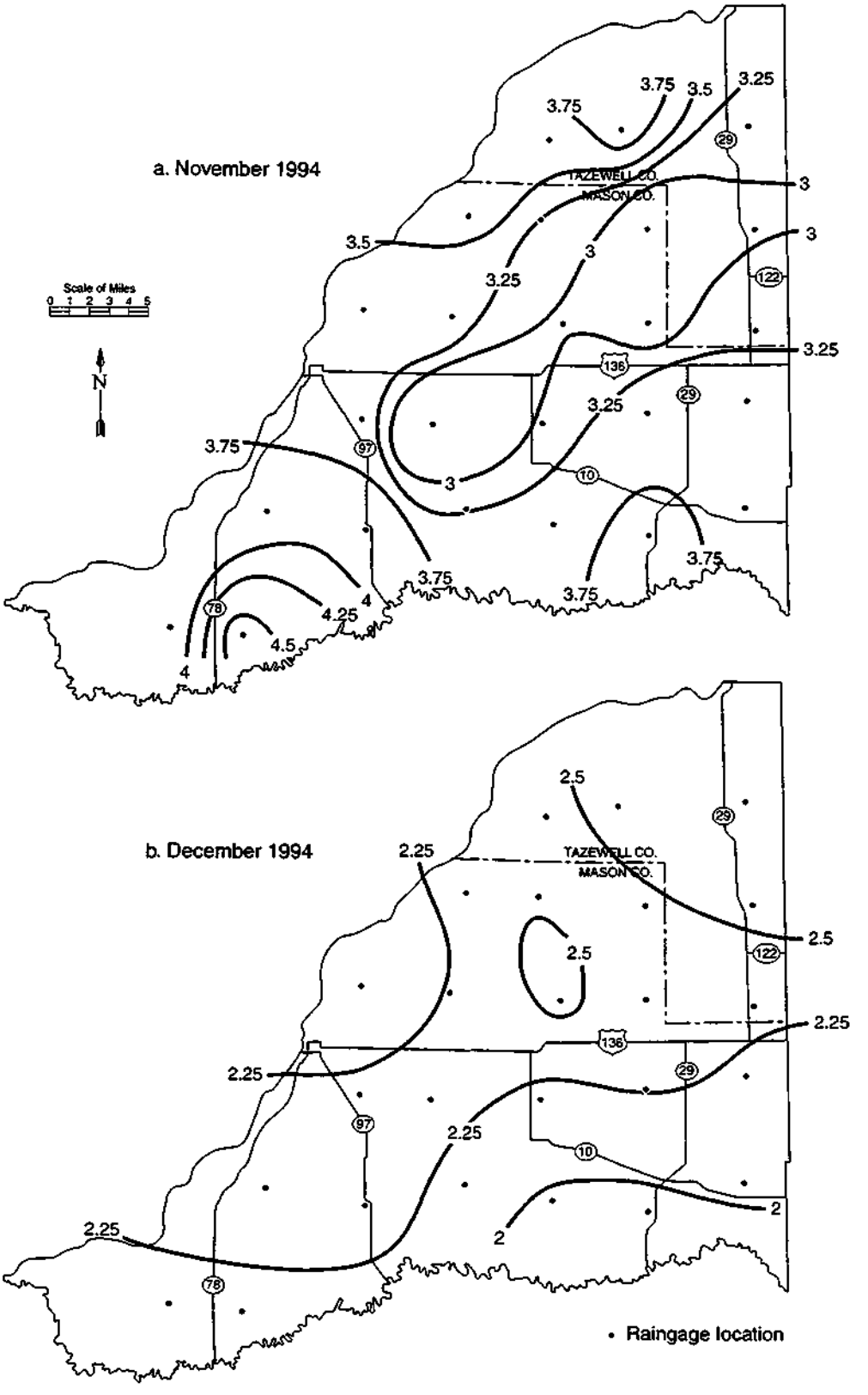


Figure 4. Precipitation pattern (inches) for November 1994 (a), December 1994 (b)

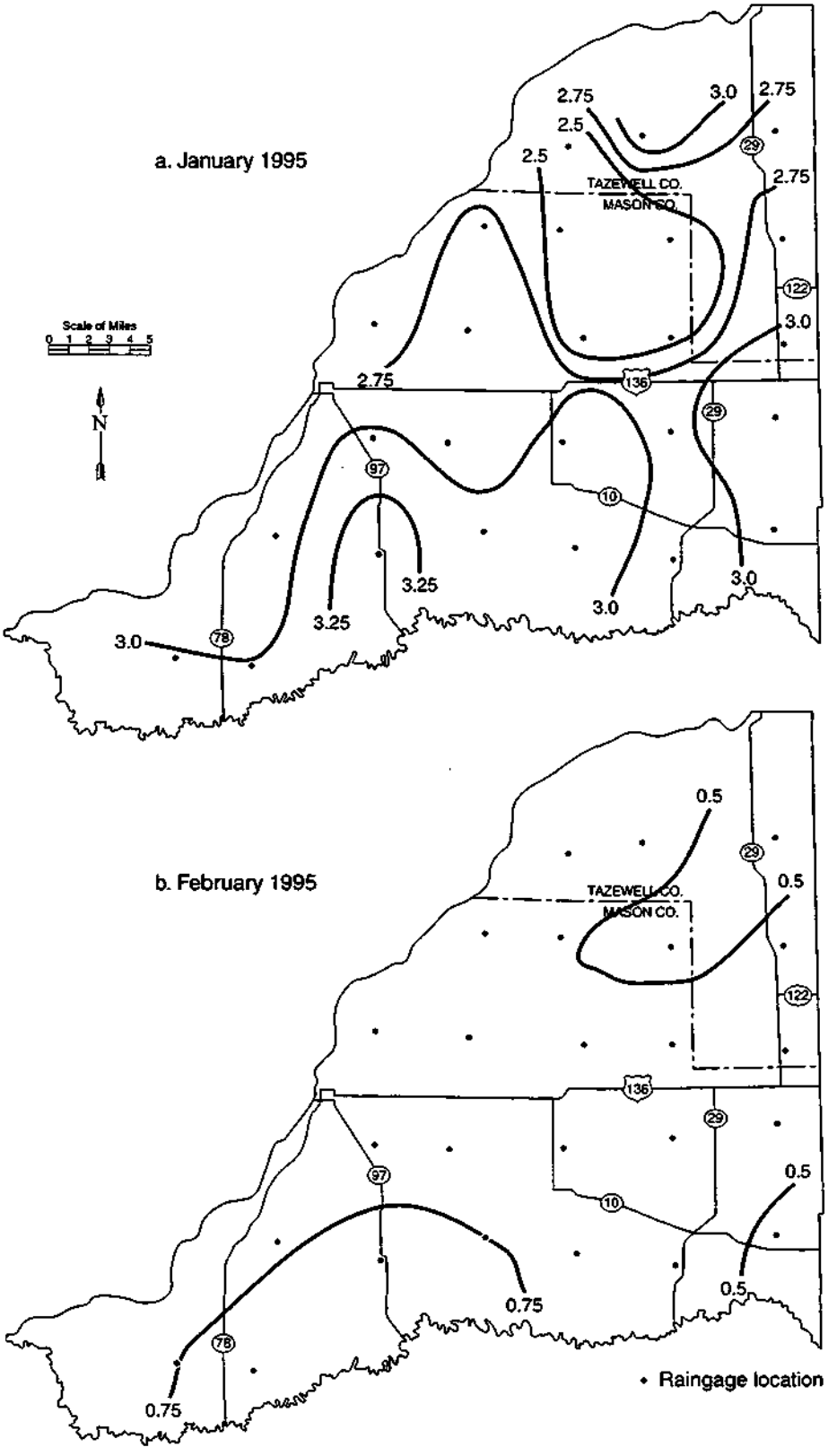


Figure 5. Precipitation pattern (inches) for January 1995 (a), February 1995 (b)

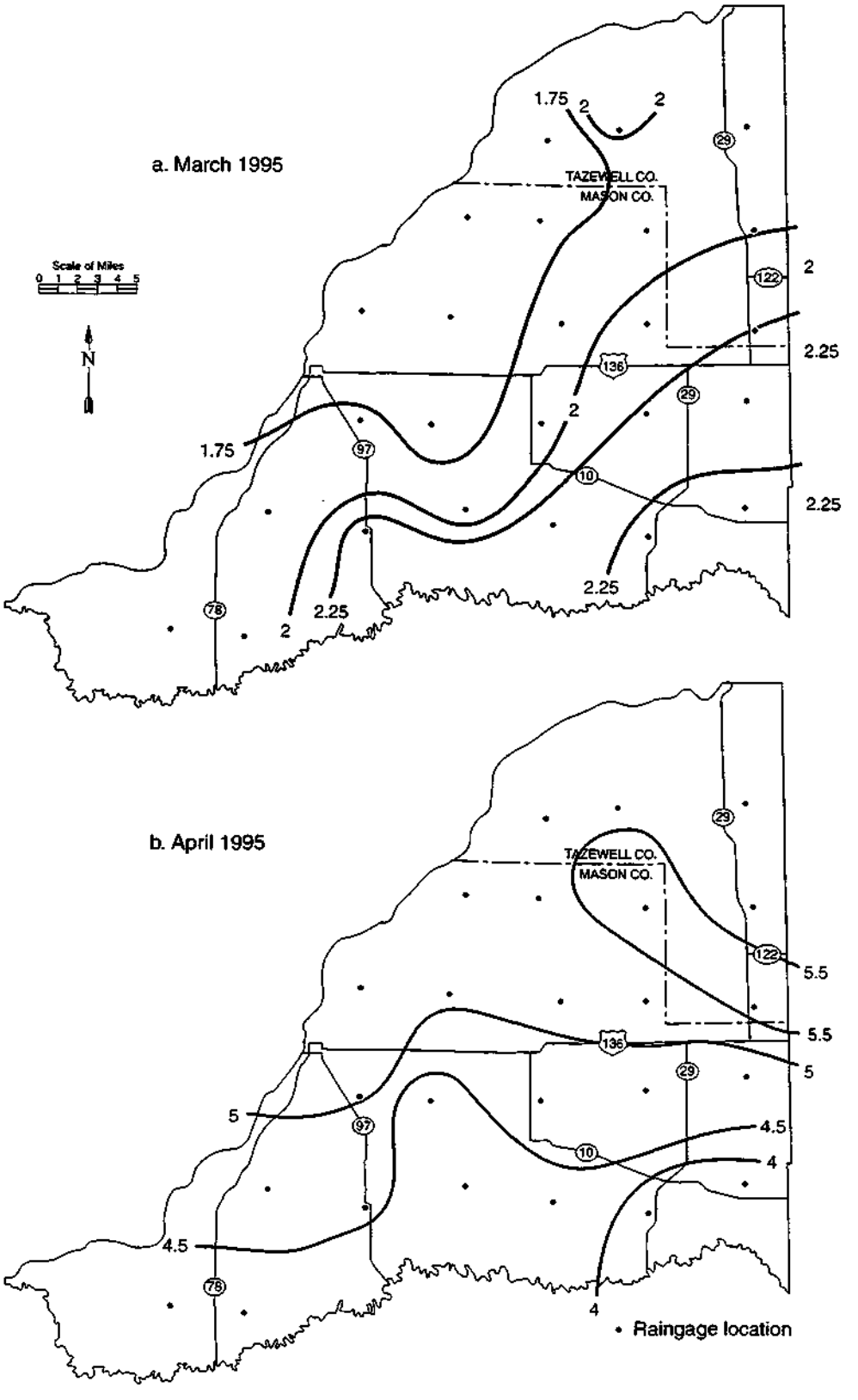


Figure 6. Precipitation pattern (inches) for March 1995 (a), April 1995 (b)

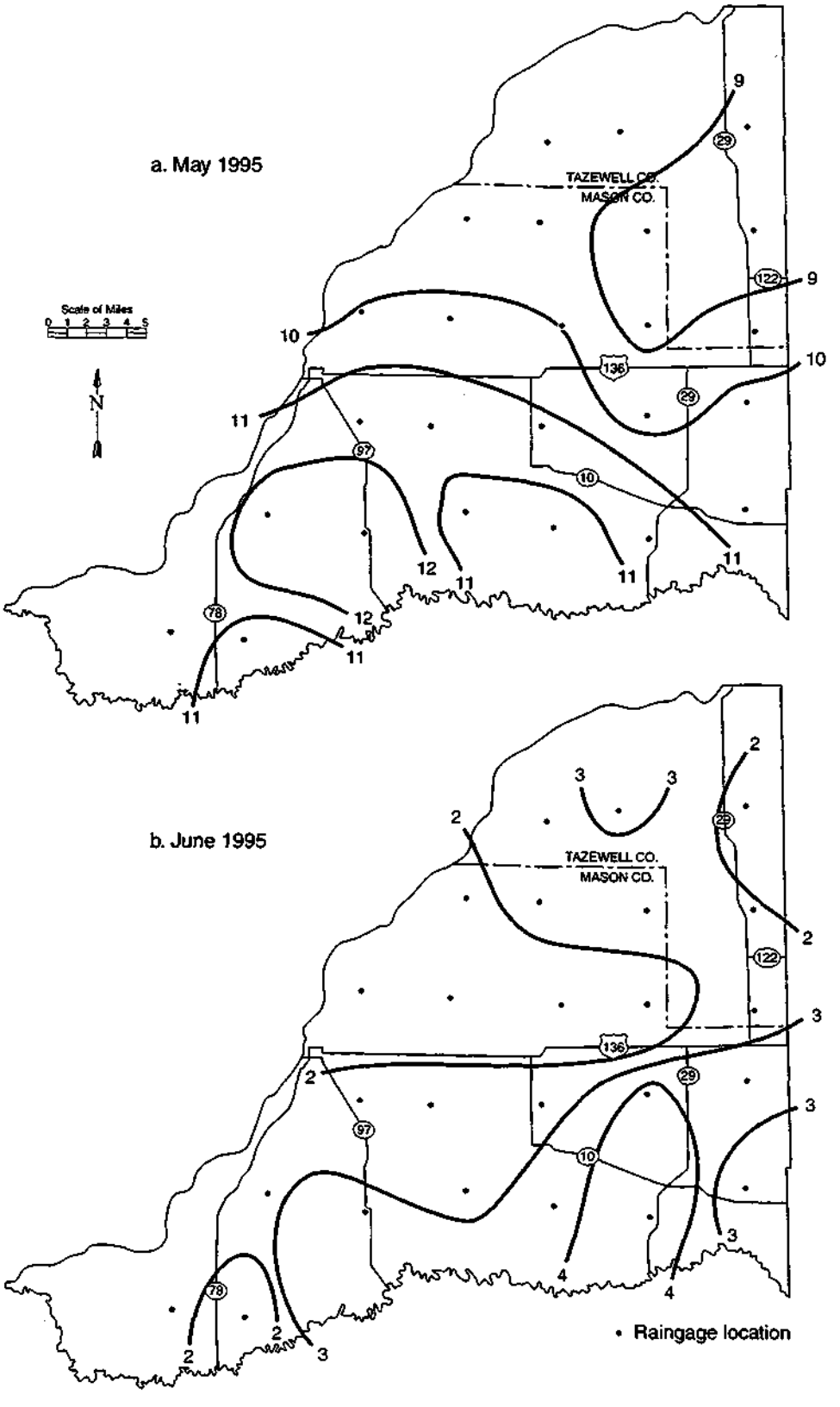


Figure 7. Precipitation pattern (inches) for May 1995 (a), June 1995 (b)

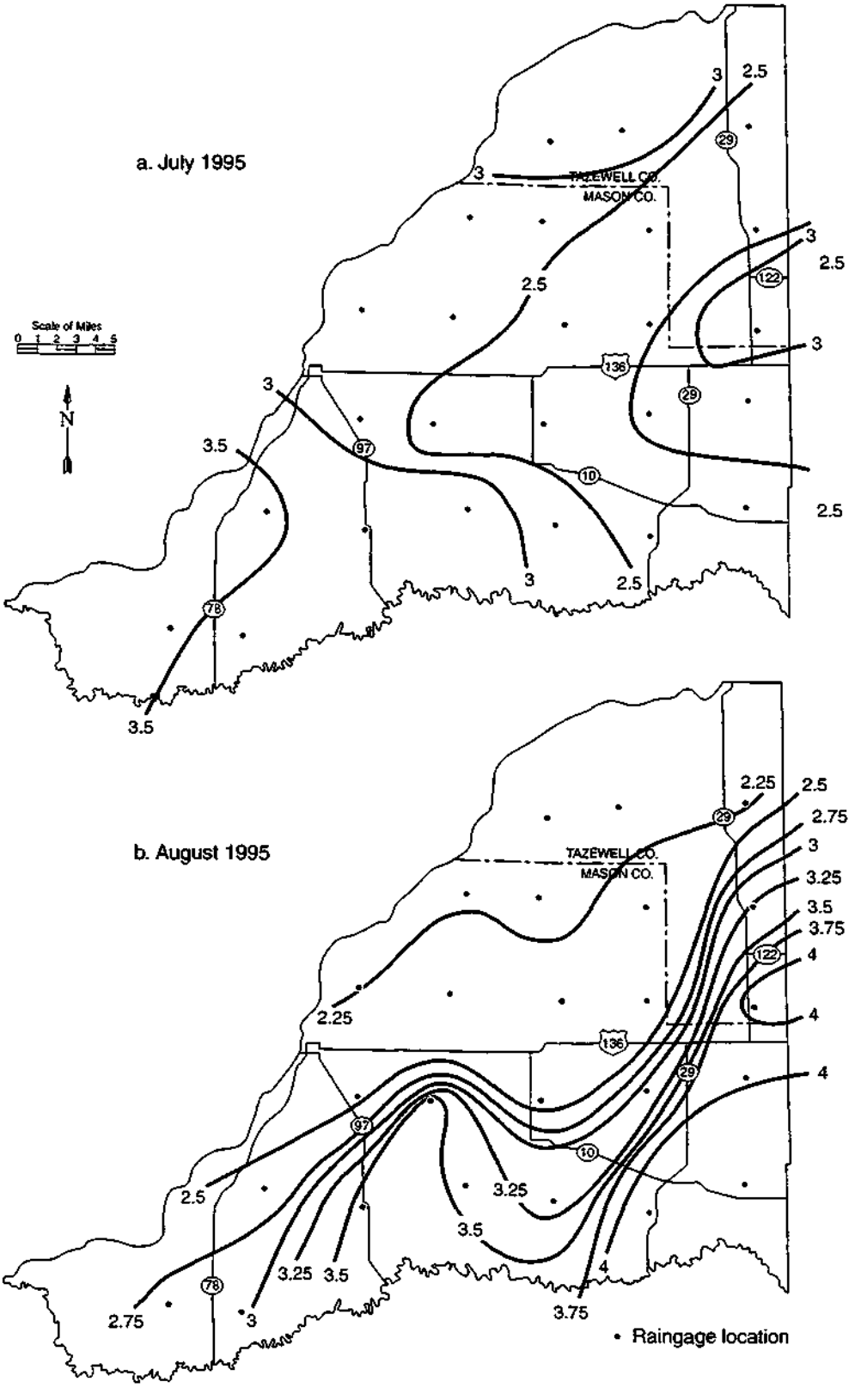


Figure 8. Precipitation pattern (inches) for July 1995 (a), August 1995 (b)

Table 2. Number of Rain Days, Rain Events, Total Rainfall, Inches of Rain per Rain Day, and Inches of Rain per Rain Event for each Month and Season for the 1992-1993, 1993-1994, and 1994-1995 Observation Years

	1992-1993					*1993-1994*					*1994-1995*				
Period	*Days*	*Events*	*Rainfall*	*In./Day*	*In/Event*	*Days*	*Events*	*Rainfall*	*In./Day*	*ln/Event*	*Days*	*Events*	*Rainfall*	*In./Day*	*In./Event*
September	8.4	12.1	4.21	0.50	0.35	8.1	11.7	11.56	1.43	0.99	4.7	7.8	1.49	0.32	0.19
October	7.6	11.0	2.00	0.26	0.18	5.3	6.2	2.97	0.56	0.48	5.3	7.6	3.34	0.63	0.44
November	11.8	19.1	6.35	0.54	0.33	8.9	13.1	2.59	0.29	0.20	8.7	12.2	3.37	0.39	0.28
December	7.8	12.0	2.82	0.36	0.24	6.5	10.2	1.11	0.17	0.11	5.3	5.8	2.29	0.43	0.39
January	7.9	12.8	3.52	0.45	0.28	5.6	8.4	0.96	0.17	0.11	5.2	7.6	2.90	0.56	0.38
February	7.0	11.4	1.64	0.23	0.14	6.6	8.6	1.64	0.25	0.19	2.9	3.0	0.61	0.21	0.20
March	9.8	17.3	3.85	0.39	0.22	3.8	4.6	0.96	0.25	0.21	5.0	6.6	1.93	0.39	0.29
April	10.3	16.5	5.25	0.51	0.32	12.8	17.2	5.03	0.39	0.29	11.8	15.0	4.87	0.41	0.32
May	10.4	14.8	2.61	0.25	0.18	6.1	10.7	3.11	0.51	0.29	11.7	18.4	10.33	0.88	0.56
June	9.8	14.7	6.27	0.64	0.43	9.6	12.8	3.19	0.33	0.25	10.2	12.8	2.65	0.26	0.21
July	15.8	22.4	11.05	1.40	0.98	5.8	6.5	3.44	0.59	0.53	9.2	12.6	2.73	0.30	0.22
August	11.7	14.2	5.99	0.51	0.42	7.7	9.6	3.66	0.48	0.38	9.4	13.0	2.90	0.31	0.22
Fall	27.8	42.2	12.56	0.45	0.30	22.3	31.0	17.12	0.77	0.55	18.7	24.1	8.20	0.44	0.34
Winter	22.7	36.2	7.97	0.35	0.22	18.7	27.2	3.70	0.20	0.14	13.4	16.4	5.80	0.43	0.35
Spring	30.5	48.6	11.71	0.38	0.24	22.7	32.5	9.10	0.40	0.28	28.5	40.0	17.14	0.60	0.29
Summer	37.3	51.3	23.31	0.62	0.45	23.1	28.9	10.29	0.45	0.36	28.8	38.4	8.28	0.29	0.22
Annual	118.3	178.3	55.55	0.47	0.31	86.8	119.6	40.21	0.46	0.34	89.4	122.4	39.42	0.44	0.32

autumns. The most rain events and rain days occurred in 1992. However, the greatest amount of rain was received during the autumn of 1993. The larger quantity of rain in 1993 was therefore due to larger storm events and greater average rainfall per rain day (Table 2). The summer of 1993 was the wettest of the three summers, and also had the most rain days and rain events during June, July, and August. The average size of the summer rain events and the average rain received per rain day in 1993 were also the largest of the three summers.

The 1994-1995 winter season (December-February) had the fewest precipitation days and events of the three winters. However, the individual precipitation events were larger than in the other two years (Table 2). Winter was the driest of the seasons across the three years of network operation.

Over the three years of observations, April is the month with the least year-to-year variability of precipitation (Figure 9). Eight months (September, November, February, March, April, June, July, and August) during 1994-1995 experienced rainfall below the three-year monthly averages. In the first year of operation (1992-1993) nine months received more rainfall than the three-year monthly means. In the second year of operation (1993-1994) nine months received less precipitation than the corresponding three-year monthly means. The extreme wetness of the first year of operation can be seen in Figure 10. During the period from 1992 to 1993 only two months had less than 2 inches of rainfall. In the second year there were four months with less than 2 inches of precipitation, and in the third year there were three months. In each year of operation there was at least one month with rainfall greater than 10 inches: July in 1992-1993, September in 1993-1994, and May in 1994-1995. During the first year there were five months with more than 5. inches of precipitation, in the second year only two months received more than 5 inches of precipitation, and in the third year only one month. Appendix IV

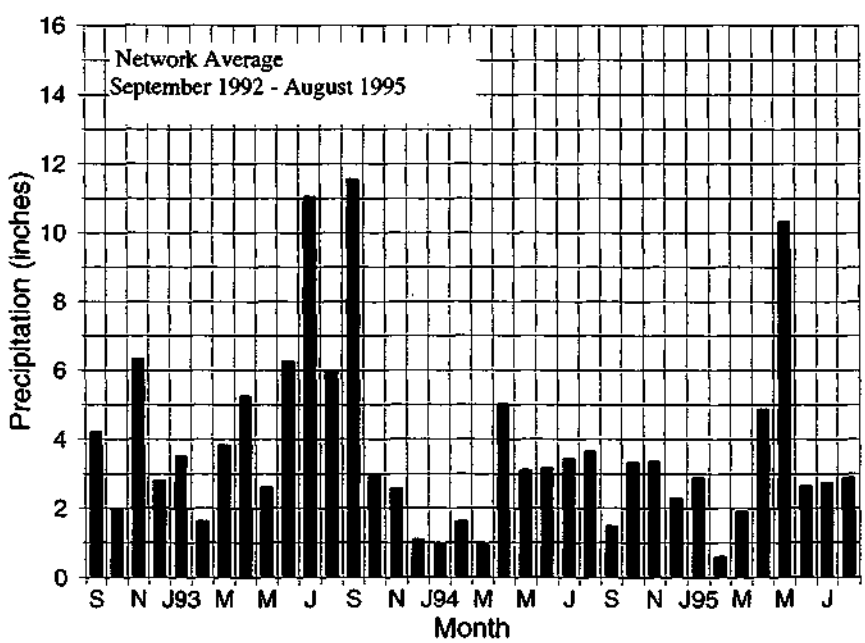


Figure 9. Monthly average precipitation for the three network years

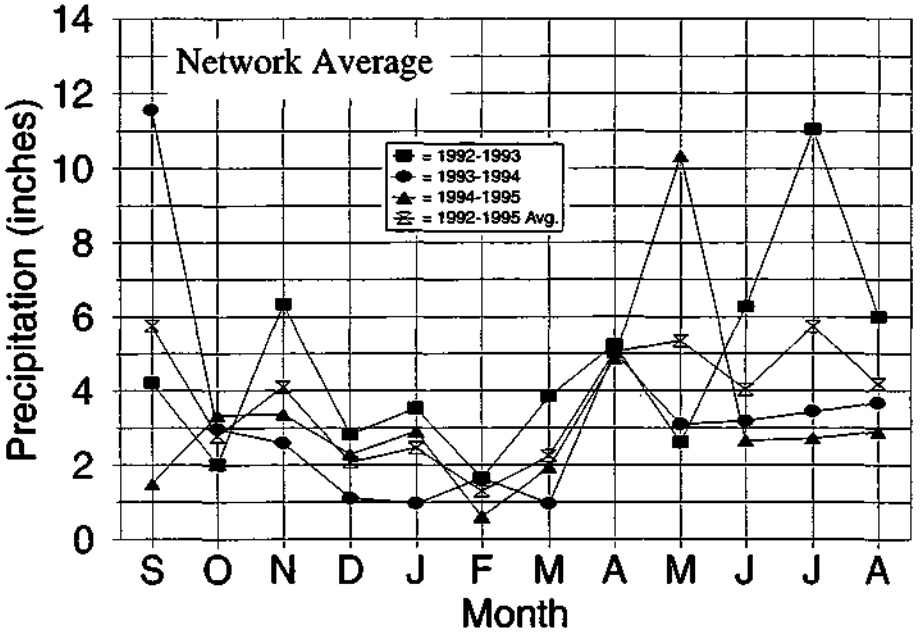


Figure 10. Time series of network average monthly precipitation for September 1992-August 1995

contains graphs of monthly average precipitation for each of the 25 raingage sites during the three years.

A total of 379 network storm periods have occurred during the three-year observation period: 148 in year one, 102 in year two, and 129 in year three. Appendix V documents each storm period with date and hour of the start of the storm period, the storm period duration, the number of stations receiving precipitation during the storm period, the network average rainfall, the storm average precipitation, the maximum precipitation received during the storm period and the station (gage) where the maximum occurred, and the storm recurrence frequency of the maximum observed precipitation. The network average rainfall is the arithmetic mean of the rain received at all 25 stations, while the storm average is the arithmetic mean of the rain received at stations reporting rainfall during the storm event. The storm recurrence frequency is the statistical probability of the recurrence of a storm with the reported precipitation (i.e., a 10-year storm would be expected to occur on average only once every ten years at a given station). The recurrence frequencies are recorded for the total storm period for the area. Also included in Appendix V is a table showing each storm and the rainfall received at each of the 25 stations during that storm.

Nineteen of the 379 storms produced maximum precipitation at one or more stations with a recurrence frequency greater than one year. Of these 19 storms, one had a 50-year recurrence frequency, one a 10-year, three a 5-year, nine a 2-year, and five a recurrence frequency of more than one year but less than two. The 50-year storm (storm 153) occurred on 13 September 1993, and the 10-year storm (storm 323) on 16 May 1995. Two of the 5-year storms occurred in 1993 (storm 105 in June and storm 149 in September) and the third (storm 327) in May 1995. The

stations that exceed the return frequency of one year are indicated in **bold** type in the Appendix V table showing the total precipitation for each storm period by station.

6. SUMMARY

The third year of operation (September 1994-August 1995) was the driest of the three years of operation. It had the wettest spring (March-May) and the driest winter (December-February) and summer (June-August). The third observation year had on average approximately two more rain days at each station, and an average of three more rain events per station than were observed during the second observation year. Both the second and third years had fewer rain events and rain days than during the first observation year.

Because of the relatively dense spacing of the raingages deployed, the network is also providing high quality data for research purposes. The data from the first three years of observation will be analyzed during the next year to determine correlations of precipitation amounts between raingage sites and to identify regions of spatial coherency in the precipitation-producing systems traversing the region, allowing further assessment of the spatial variability of the precipitation. Estimates of the probabilities of different storm paths and precipitation patterns in the area will also be developed.

These data and statistics, in combination with ground-water information now being collected in the area on a routine basis, should enhance the ability of the IVWA to accurately and efficiently manage the region's underground water resources.

7. ACKNOWLEDGMENTS

This work was contracted by the IVWA under grant "Imperial Valley 223," with partial support from the ISWS general revenue fund. Mr. Morris Bell, chairman of the IVWA, and his board administer the project. Doug Ward established the digitizing system, including software; Marv Clevenger, Roma Johnson, and Mike Snider handled all digitizing tasks; Nancy Westcott assisted with the end of the year data reduction; Dave Cox drafted the figures for this report, under the supervision of Linda Hascall; and Sarah Hibbeler edited the report. The late Douglas M. A. Jones, ISWS meteorologist emeritus, and Mike Snider made the field portion of this project run smoothly, and their efforts are greatly appreciated. The ISWS and IVWA would also like to take this opportunity to thank all of the local Mason/Tazewell County observers, past and present, for their diligence in making this project a success.

8. REFERENCES

Huff, F. A., 1970: Sampling errors in measurement of mean precipitation. *Journal of Applied Meteorology,* 9, 35-44.

Huff, F. A., and J. R. Angel, 1989: *Frequency Distributions and Hydroclimatic Characteristics of Heavy Rainstorms in Illinois.* Illinois State Water Survey Bulletin 70, 177p.

Peppier, R. A., and S. E. Hollinger, 1994: *Installation and Operation of a Raingage Network for the Imperial Valley Water Authority Year One: September 1992 - August 1993.* Illinois State Water Survey Contract Report 575, 59p.

Peppier, R. A., and S. E. Hollinger, 1995: *Continued Operation of a Raingage Network for the Imperial Valley Water Authority Year Two: September 1993 - August 1994.* Illinois State Water Survey Contract Report 583, 40p.

APPENDIX I: RAINGAGE SITE DESCRIPTIONS

This appendix contains site descriptions of each raingage site in the IVWA network as of August 31, 1995. Sites that have been relocated since the network was established in August 1992 are so noted in the "Placement" portion of their site description.

SITE DESCRIPTION		
Site Number: 1		
County: Tazewell	Latitude: 40° 28' 3"	Longitude: 89°50'9"
Property Owner: Melvin Fornoff		
Address: 10200 Fornoff Road, Manito, IL 61546		
Telephone: 309-968-6653		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 4695	Gage ID No.: SWS 5068	
Placement: Near apple/pear trees, northeast of a garage. Property on east side of 450 E in Tazewell County, north of 1000 N. Large dog. SWS services. Gage 15 meters northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 2		
County: Tazewell	Latitude: 40° 28' 42"	Longitude: 89°45'54"
Property Owner: Ken Becker		
Address: 8479 Townline Road, Manito, IL 61546		
Telephone: 309-545-2207		
Permission Date: 8-15-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 4723	Gage ID No.: SWS 5030	
Placement: In back yard (grass) near garbage burner. Property on south side of 1100 N in Tazewell County, west of 900 E. SWS services. Gage 2 meters west of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 3		
County: Tazewell	Latitude: 40° 28'56"	Longitude: 89° 37' 33"
Property Owner: Lonn Schleder		
Address: RR #3, 11177 S. 14th Street, Pekin, IL 61554		
Telephone: 309-348-2447		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 1463	Gage ID No.: SWS 3693	
Placement: Moved 5-13-94 to a position about 60 meters north-northeast of original position, which was in a back pasture along a wire fence between a white aluminum shed and a large tree. Present position is between a garage and another shed near a well. Property on northwest corner of the intersection of 1600 E and 1100 N. SWS services. Gage 50 meters north-northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 4		
County: Mason	Latitude: 40° 24'29"	Longitude: 89° 54' 41"
Property Owner: Ellis Popcorn (Maureen Hanks)		
Address: R.R. #1, Topeka, IL 61567		
Telephone: 309-535-3840		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 7382	Gage ID No.: SWS 6573	
Placement: South of large white office building, between two trees in a grassy area. Property on east side of 2340 E in Mason county, northeast of Goofy Ridge. Mrs. Hanks services. Gage 10 meters south-southwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 5		
County: Mason	Latitude: 40° 24'29"	Longitude: 89° 50'19"
Property Owner: Joseph Meyer		
Address: R.R. # 1, Box 175, Topeka, IL 61567		
Telephone: 309-968-6378		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 5985	Gage ID No.: CDA 000130	
Placement: Next to stone drive in a pasture in front of house. Property on west side of 2750 E in Mason County, south of 2500 N. SWS services. Gage 3 meters east lat/lon reading.		

SITE DESCRIPTION		
Site Number: 6		
County: Mason	Latitude: 40° 24' 12"	Longitude: 89° 44' 6"
Property Owner: c/o Wes Hilst		
Address: R.R. # 3, Box 116, Manito, IL 61546		
Telephone: 309-968-7043		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 5295	Gage ED No.: SWS 5309	
Placement: Next to old farm machinery just north of garden and northeast of green shed. Property on west side of 3300 E in Mason County, just south of 2400 N. SWS services. Gage 18 meters south of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 7		
County: Tazewell	Latitude: 40° 24'24"	Longitude: 89° 37'29"
Property Owner: David Van Orman		
Address: 5801 Warner Road, Green Valley, IL 61534		
Telephone: 309-352-5673		
Permission Date: 8-10-92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 5935	Gage ID No.: -	
Placement: Moved in May 1993 to a position south of a barn with a green roof, near edge of field. Original position was 30 meters to the northeast, north of the same barn. Both positions are northwest of the house. Property located just east of Green Valley on south side of 600 N in Tazewell County, just west of 1600 E. SWS services. Gage 17 meters west-northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 8		
County: Mason	Latitude: 40° 20'32"	Longitude: 90° 1'8"
Property Owner: Gary Blakely		
Address: 18012 E. County Road N, Havana, IL 62644		
Telephone: 309-543-4949		
Permission Date: 8-10-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 2000	Gage ID No.: US 148085	
Placement: East-southeast of house near a small tree. Property located on north side of 1950 N in Mason County west of 1900 E. Mr. Blakely services. Gage 36 meters east-northeast of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 9		
County: Mason	Latitude: 40° 19'41"	Longitude: 89° 55' 55
Property Owner: John Crum		
Address: Box 19, Topeka, IL 61567		
Telephone: 309-535-2080		
Permission Date: 5-14-93		
Installation Date: 5-14-93		
Gage Mfrs. No.: 5986	Gage ID No.: CDA 000132	
Placement: Located in a sparse apple orchard about 70 meters west of house. Original position from 8-24-92 to 5-14-93 was at R.R. #1, Box 6, Topeka, about one mile north-northeast of present position at a farmstead, between a tank and a light pole along a front drive. Present location is on Pear Street in the far southwestern portion of Topeka in Mason County. From 2280 E turn west on 5th Street until you reach Pear Street. Mr. Crum services. Gage 75 meters west-northwest of lat/lon reading.		
SITE DESCRIPTION		
Site Number: 10		
County: Mason	Latitude: 40° 19' 58"	Longitude: 89° 48'53"
Property Owner: Paul Meeker		
Address: RR # 1, Box 31, Forest City, IL 61532		
Telephone: 309-597-2163		
Permission Date: 8-10-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 4679	Gage ID No.: SWS 5100	
Placement: West of hedge row on southwest edge of home property. Property is on north side of 1900 N in Mason County, east of 2800 E, and the gage is about 3 meters north of 1900 E. SWS services. Gage 5 meters northeast of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 11		
County: Mason	Latitude: 40° 20'2"	Longitude: 89° 44'4"
Property Owner: Louis Moehring		
Address: 32972 E. County Road 1900 N, Manito, IL 61546		
Telephone: 217-482-3320		
Permission Date: 8-10-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 3362	Gage ID No.: SWS 4450	
Placement: North side (back of) house along a walk. Property is on northwest corner of intersection of 1900 N and 3300 E in Mason County. Mr. Moehring services. Gage 12 meters southwest of lat/lon reading.		
SITE DESCRIPTION		
Site Number: 12		
County: Tazewell	Latitude: 40° 20'16"	Longitude: 89° 38'26"
Property Owner: Harold Deiss		
Address: 1327 Route 29, San Jose, IL 62682		
Telephone: 309-247-3535		
Permission Date: 8-10-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 3346	Gage ID No.: SWS 4439	
Placement: East side of Route 29 (1500 E) in Tazewell County in a grassy area southwest of a red shed. Deiss house is 1/4 mile north. Just north of Day Ditch. SWS services. Gage 2 meters south of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 13		
County: Mason	Latitude: 40° 15'43"	Longitude: 90° 0'48"
Property Owner: Don Hahn		
Address: R.R. # 1, Box 386, Havana, IL 62644		
Telephone: 309-543-4660		
Permission Date: 8-11 -92		
Installation Date: 8-25-92		
Gage Mfrs. No.: 5939	Gage ID No.: -	
Placement: Left side of front entrance drive near a short fence. Property on south side of the diagonal 1450 N, east of Route 92. Mr. Hahn services. Gage 3 meters north-northeast of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 14		
County: Mason	Latitude: 40° 15'52"	Longitude: 89° 56' 33"
Property Owner: Wayne Patterson (650 E. Taintor, Rd., Springfield, IL 62702-1755)		
Address: R.R. #1, Box 220, Easton, IL 62633		
Telephone: 309-543-4664		
Permission Date: 8-11-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 4678	Gage ID No.: SWS 5098	
Placement: In a small clearing north of house. Property located on east side of 2200 E in Mason County south of 1500 N. Correspondence address changed to that of Wayne Patterson on 3-26-94. SWS services. Gage 17 meters northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 15		
County: Mason	Latitude: 40° 15"27"	Longitude: 89° 50'22"
Property Owner: c/o Joe Umbach		
Address: R.R. #1, Box 156, Easton, IL 62633		
Telephone: 309-562-7611		
Permission Date: 8-12-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 6462	Gage ID No.: CDA 000136	
Placement: Along right side of the house lane which extends north from 1410 N in Mason County between Route 10 and 2800 E. 1410 N runs from southwest to northeast along Central Ditch. SWS services. Gage 2 meters north-northeast of lat/lon reading.		
SITE DESCRIPTION		
Site Number: 16		
County: Mason	Latitude: 40° 16'5"	Longitude: 89° 44'9"
Property Owner: Donald Osborn, Sr.		
Address: 32866 E. County Road 1450 N, Mason City, IL 62664		
Telephone: 217-482-5816		
Permission Date: 8-11-92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 46595	Gage ID No.: SWS 5059	
Placement: Along right side of drive near pig pen and road (1450 N). Property located on north side of 1450 N just west of 3300 E. Mr. Osborn services. Gage 2 meters east of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 17		
County: Mason	Latitude: 40° 16' 51"	Longitude: 89° 38'25"
Property Owner: Larry Jennings		
Address: R.R. #1, Box 100, San Jose, IL 62682		
Telephone: 309-274-3781		
Permission Date: 8-11 -92		
Installation Date: 8-24-92		
Gage Mfrs. No.: 5280	Gage ID No.: SWS 5317	
Placement: West of garage near back fence and animal petting area. Property located on 3800 E in Mason county just north of 1500 N. SWS services. Gage 34 meters west of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 18		
County: Mason	Latitude: 40° 11'32"	Longitude: 90° 6'15"
Property Owner: Vernon Heye		
Address: R.R. #1, Bath, IL 62617		
Telephone: 309-546-2266		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 5278	Gage ID No.: SWS 5308	
Placement: East of white shed near field on east edge of home property. Property located on north side of 900 N in Mason county about 2 miles east of Bath. SWS services. Gage about 37 meters east-northeast of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 19		
County: Mason	Latitude: 40° 11' 1"	Longitude: 90° 70' 19"
Property Owner: Charles W. Lane		
Address: R.R. #1, box 51 Kilbourne, IL 62655		
Telephone: 309-538-4397		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 4718	Gage ID No.: SWS 5081	
Placement: Along a wire fence separating home property from pig pen, northwest of hours. Property located on west side of Route 97 on southern end of a large curve between 900 N and 800 N. Mr. Lane services. Gage 14 meters northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 20		
County: Mason	Latitude: 40° 11'46"	Longitude: 89° 54' 56"
Property Owner: Wanda Krause		
Address: R.R. #1, Box 109, Easton, IL 62633		
Telephone: 309-562-7528		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 3771	Gage ID No.: US 148830	
Placement: In yard of Jon Krause just north of the east-west lane and to the west of the lane to the Krause home. The raingage was moved to this position in early 1995. The previous location was on the east side of 2400 E in Mason County near Jon Krause mailbox, was in a strawberry patch along the same lane about 250 meters to the west on the Wanda Krause property. SWS services. Gage 150 meters east of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 21		
County: Mason	Latitude: 40° 11'10"	Longitude: 89° 49' 39"
Property Owner: John Walters		
Address: 28030 E. County Road 850 N, Mason City, IL 62664		
Telephone: 309-562-7527		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 6294	Gage ID No.: CDA 00013A	
Placement: East of the house and driveway and southeast of a shed. Property located on a hill on the northeast corner of the intersection of 2800 E and 850 N in Mason County. Position previous to 5-20-94 was between a windmill and a bush about 25 meters west of present position. Mrs. Walters services. Gage 25 meters east of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 22		
County: Mason	Latitude: 40° 10'46"	Longitude: 89° 44'28"
Property Owner: Joe Swaar		
Address: 32706 E. County Road 800 N, Mason City, IL 62664		
Telephone: 217-482-5571		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 4708	Gage ID No.: SWS 5021	
Placement: On a concrete slab with two 2" x 4"s attached to the base of the gage, west of the house and lane on a ridge. Property is located on north side of 800 N in Mason County west of Route 29 and southwest of Mason City. Mr. Swaar services. Gage 25 meters west of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 23		
County: Mason	Latitude: 40° 12' 0"	Longitude: 89° 38'28"
Property Owner: Dale C. Fancher		
Address: 9482 N. County Road 3800 E, Mason City, IL 62664-7209		
Telephone: 217-482-3506		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 3773	Gage ID No.: US 148832	
Placement: On the west edge of a garden located north of a wood shop and the house. Property located on the west side of 3800 E in Mason County about a half mile north of Route 10, east of Mason City. Mr. Fancher services. Gage 30 meters north-northwest of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 24		
County: Mason	Latitude: 40° 6'26"	Longitude: 90° 11'58"
Property Owner: Norman L. Fletcher		
Address: R.R. # 1, Box 147, Bath, IL 62664		
Telephone: 309-546-2677		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: —	Gage ID No.: ~	
Placement: North of a garage near a grapevine, northeast of the house. Property located on the east side of 800 E in Mason County west of Route 78, just north of 300 N. Mrs. Fletcher services. Gage 32 meters northeast of lat/lon reading.		

SITE DESCRIPTION		
Site Number: 25		
County: Mason	Latitude: 40° 6'14"	Longitude: 90° 8' 0"
Property Owner: Rocky Adkins		
Address: R.R. #2, Box 16, Chandlerville, IL 62627		
Telephone: 217-458-2587		
Permission Date: 8-11-92		
Installation Date: 8-26-92		
Gage Mfrs. No.: 5947	Gage ID No.: ~	
Placement: Next to two tanks and a sign in a small grassy area surrounded by truck access. Property located at Adkins Farms on south side of 300 N (east of Route 78) in Mason County. SWS services. Gage 2 meters south of lat/lon reading.		

APPENDIX II: INSTRUCTIONS FOR RAINGAGE TECHNICIANS

A. Use Central Standard Time:

From October through March, Illinois is in the Central Standard Time zone, so the time your watch shows is the time to use when you write the time and date on the chart. From April through October, subtract one hour from what your watch says, since during the warm season Illinois is in the Central Daylight Time (Eastern Standard Time) zone.

B. Order of Servicing:

1) Old Chart

a) Unlock and open (slide up) door on the side of the instrument case and then lock door in place to prevent it from falling.
b) Depress the bucket platform casting to mark the OFF time position on the chart (a vertical trace will be written by the pen).
c) Note the time on your watch, and move the pen point and arm away from the chart by pushing out on the pen bracket.
d) Lift up on the drum cylinder that contains the chart in order to disengage it from the chart drive, and remove it out the door.
e) Remove the chart from the drum and write the OFF date and time on the chart on the red line at the right end of the chart.

2) Bucket

a) Remove the collector from the top of the gage by rotating it clockwise to disengage the tongue-and-groove assembly, set it down.
b) Carefully lift the bucket off of the weighing platform if there is water in it and dump the water on the ground.
c) Reposition the empty bucket on the platform.
d) Reinstall the collector by setting it on top of the raingage case and turning counterclockwise until the tongue-and-groove assembly meshes.
e) During wintertime operation, when a quart of antifreeze is in the bucket to prevent freezing, do not dump the bucket contents. We will monitor the increase in liquid in the bucket at the Water Survey (via the chart trace) and come to dispose of the liquid when it approaches the top of the bucket.

3) New **Chart**

a) Copy the OFF time from the old chart to the ON time on the new chart (another red line on end of the chart) and write your site number on the chart.
b) Clip the new chart to the drum cylinder, making sure the crease at the right end

of the chart is sharp and the chart is tight on the cylinder.

c) Wind the chart drive lever until you can't anymore so that the chart drive will be ready to run again for another eight days.

d) Reinstall the chart cylinder onto the chart drive, making sure the chart cylinder and drive gears mesh. Simply push down on the cylinder and wiggle it a little. You should feel some resistance if done correctly.

e) Move the pen arm and point over to the chart cylinder with the pen bracket and rotate the cylinder counterclockwise until the pen point coincides with the correct ON time position.

f) Let the pen point rest right on the chart and depress the platform casting again to make a small vertical line denoting the ON time position.

g) When you are sure that everything is in order, carefully unlock the door, push the door down, and lock it into place for another week.

4) Problems

a) If you notice anything unusual about the gage or the chart drive operation, write a note on the upper right corner of the old chart.

b) If you think the problem requires immediate attention, call Randy Peppier collect at 217-244-1798 (day) or 217-356-6083 (night) to relay the information to him. Situations worthy of immediate attention include confusion over how to perform the operation described above, premature chart-drive stoppage, or unauthorized tampering with the gage. Immediate repairs will be scheduled if necessary.

c) Once you become experienced with this operation, it will take you less than five minutes to do it. Don't let the above instructions scare you - this operation is actually easier to perform than describe!

5) Disposition of Old Chart

a) Carefully fold the old chart and place it in one of the postage-paid envelopes provided.

b) Mail the chart to the State Water Survey.

C. Change in site status:

If at any time you decide that you no longer want the gage on your property or would rather that we service it, please contact Water Survey staff immediately so that they can make new arrangements. It is important to try to keep the sites in the same locations during the course of this project since rainfall generally varies greatly over short distances.

We greatly appreciate your cooperation for this project.

APPENDIX III: DOCUMENTATION OF RAINGAGE MAINTENANCE

This appendix documents major maintenance work carried out at sites in the network from September 1, 1994, through October 31, 1995. All gages were cleaned and lubricated and their calibration checked during September 15-16, 1994, and again during October 1995. Each raingage was releveled and had new pen points and chart drives installed at various times during the year. None of these activities are listed below. Other than sites #15 and #20, no sites needed major maintenance during the third network year.

SITE #20

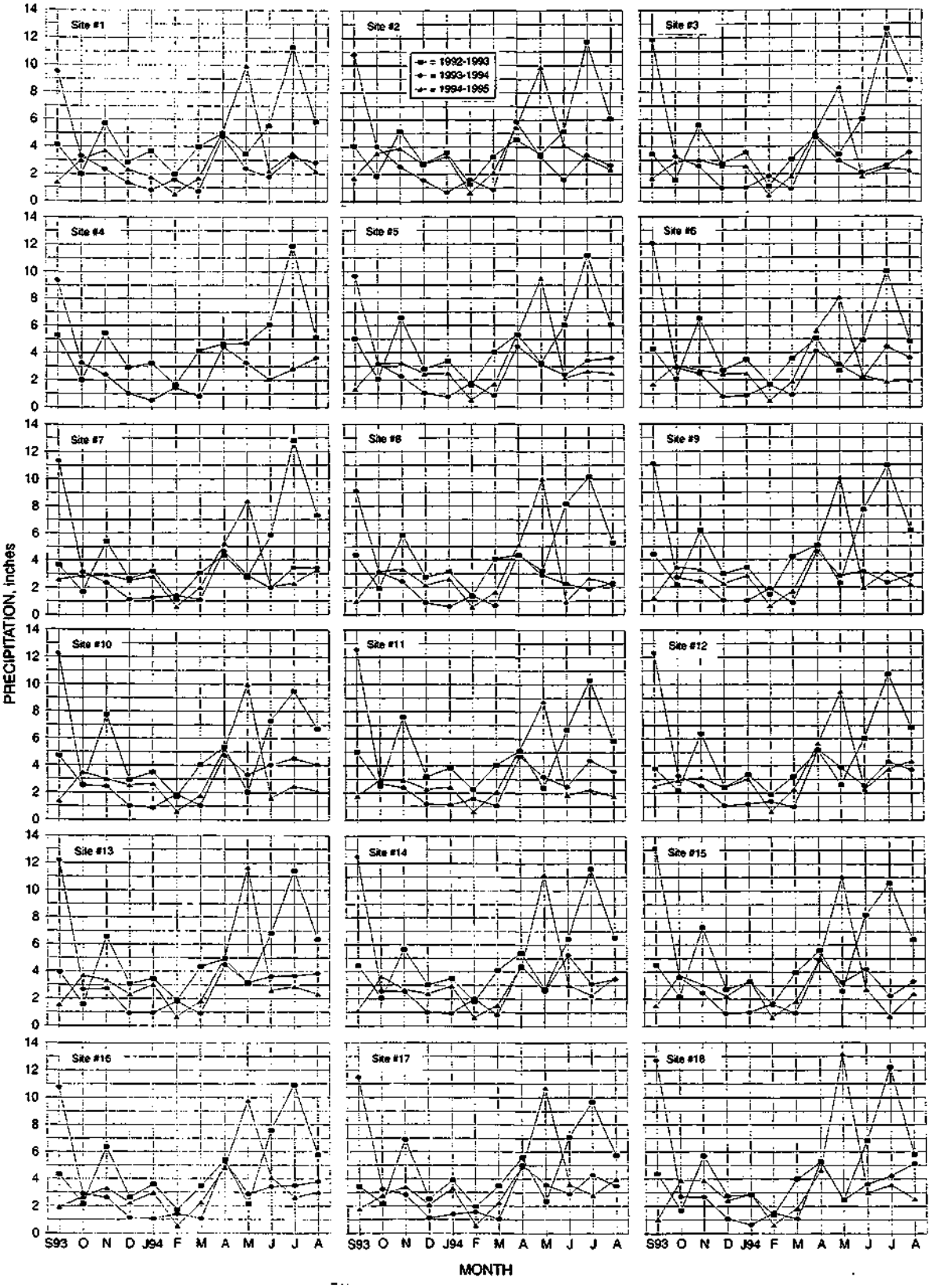
3-15-95: Moved raingage from near road to the yard of Jon Krause, 100 meters west of previous site.

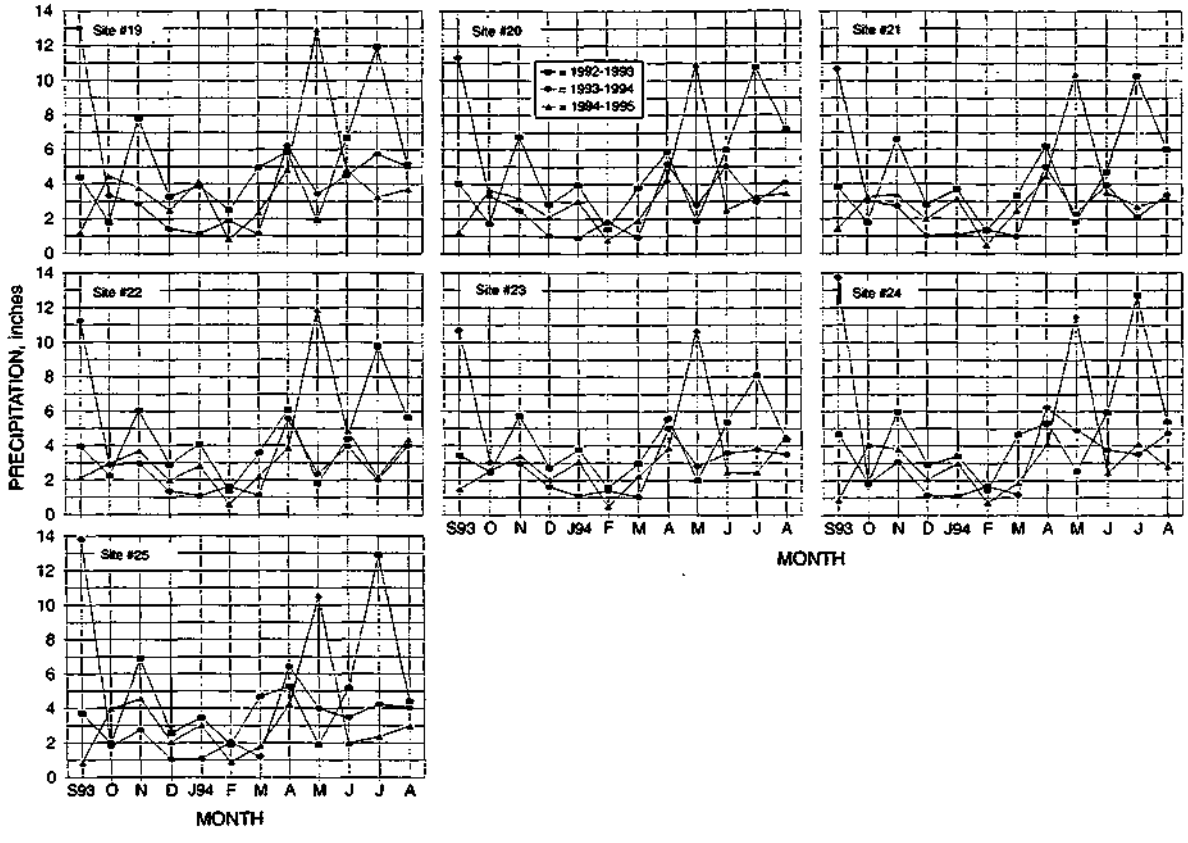
SITE #15

8-15-95: Adjusted coarse adjustment, and checked calibration. Calibration was okay.

APPENDIX IV: MONTHLY PRECIPITATION VARIABILITY AT EACH SITE

This appendix contains graphs of the monthly variability of precipitation amounts at each site in the IVWA Network. Each graph plots the monthly average precipitation (in inches) for a site for each month during the observation year (September through August of the following year). Data include the monthly totals for the 1992-1993, 1993-1994, and 1994-1995 observation years. Actual 1994-1995 monthly amounts are contained in Table 1. The 1992-1993 totals can be found in Peppier and Hollinger (1994), and for 1993-1994 in Peppier and Hollinger (1995).


Site #1
Site #2
Site #3
Site #4
Site #5
Site #6
Site #7
Site #8
Site #9
Site #10
Site #11
Site #12
Site #13
Site #14
Site #15
Site #16
Site #17
Site #18
= 1992-1993
= 1993-1994
= 1994-1995
PRECIPITATION, inches
0
2
4
6
8
10
12
14
S93 O N D J94 F M A M J J A
MONTH


Site #19
Site #20
Site #21
Site #22
Site #23
Site #24
Site #25
1992-1993
1993-1994
1994-1995
PRECIPITATION, inches
0
2
4
6
8
10
12
14
S93 O N D J94 F M A M J J A
MONTH

APPENDIX V: DOCUMENTATION OF HEAVY STORM AMOUNTS

This appendix documents all storm period amounts, start time, and duration, and notes those that exceeded an annual event (one-year recurrence interval) during the period September 1, 1992, through August 31, 1995. Individual storm durations of one hour to ten days were considered. The rainfall amounts for a one-year recurrence interval and these storm durations for west-central Illinois are given below (Huff and Angel, 1989):

Storm	Rainfall (inches) for Given Recurrence Interval						
Duration	**1-Yr**	**2-Yr**	**5-Yr**	**10-Yr**	**25-Yr**	**50-Yr**	**100-Yr**
1 hour	1.18	1.42	1.77	2.09	2.50	2.86	3.25
2 hours	1.48	1.78	2.22	2.62	3.14	3.59	4.08
3 hours	1.61	1.93	2.41	2.85	3.41	3.89	4.43
6 hours	1.89	2.26	2.82	3.33	3.99	4.56	5.19
12 hours	2.17	2.62	3.27	3.87.	4.63	5.29	6.02
18 hours	2.28	2.75	3.46	4.09	4.90	5.59	6.37
24 hours	2.52	3.02	3.76	4.45	5.32	6.08	6.92
48 hours	2.81	3.38	4.19	4.86	5.78	6.62	7.51
72 hours	3.05	3.70	4.55	5.26	6.15	7.25	8.16
5 days	3.48	4.17	5.11	5.84	6.96	7.98	9.21
10 days	4.29	5.12	6.27	7.10	8.19	9.10	10.18

The following table documents individual storm start time (hour), duration (in hours), number of gages receiving precipitation during each storm, average precipitation over the network of 25 gages, average precipitation at the gages receiving precipitation during the event, maximum precipitation at any gage during the storm, and the location of the gage. The last column in the table indicates whether a particular storm exceeded events greater than an annual event (1-year to 100-year recurrence intervals considered). Only those events with maximum precipitation greater than that expected once a year are shown. A storm recurrence frequency of 50 years means that a storm this size would be expected once every 50 years. Storm amounts are in inches.

Table V-1. Documentation of Storm Amounts

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					September 1992				
1	1	0900	8	25	0.45	0.45	1.07	11	
2	2	0300	11	25	0.23	0.23	0.38	4	
3	2	2100	3	13	0.06	0.11	0.28	12	
4	7	2100	7	25	0.74	0.74	1.83	24	
5	9	0300	20	25	1.34	1.34	1.89	14	
6	14	1400	2	7	0.03	0.11	0.25	5	
7	18	0600	6	23	0.05	0.05	0.14	25	
8	18	1800	1	2	0.00	0.06	0.09	24	
9	20	0800	24	25	1.08	1.08	1.42	5	
10	25	2200	24	25	0.23	0.23	0.38	19	
					October 1992				
11	8	0300	37	25	0.34	0.34	0.50	10	
12	9	2400	8	21	0.07	0.08	0.17	4	
13	10	1600	3	16	0.04	0.07	0.20	11	
14	14	2300	11	25	0.85	0.85	1.25	11	
15	15	2000	3	18	0.04	0.05	0.16	23	
16	19	2200	6	25	0.18	0.18	0.43	24	
17	28	1900	4	16	0.02	0.04	0.07	14	
18	29	0400	6	11	0.03	0.07	0.10	1	
19	29	1800	19	19	0.08	0.11	0.29	24	
20	31	1600	38	25	2.18	2.18	3.39	11	2-Yr
					November 1992				
21	3	0900	14	25	0.63	0.63	0.81	22	
22	8	2300	12	25	0.23	0.23	0.33	1	
23	9	1900	16	25	0.71	0.71	1.02	19	
24	10	1700	15	25	0.15	0.15	0.30	21	
25	11	1700	23	25	0.58	0.58	0.79	3	
26	17	1900	3	2	0.00	0.03	0.03	24	
27	18	0200	6	2	0.01	0.09	0.10	24	
28	18	1500	18	25	0.52	0.52	0.84	19	
29	19	2400	12	25	0.19	0.19	0.34	1	
30	20	1600	11	25	0.46	0.46	0.66	24	
31	21	0400	25	25	0.65	0.65	0.89	16	
32	25	0300	20	25	0.38	0.38	0.52	1	
33	30	1500	6	7	0.01	0.04	0.06	8	
					December 1992				
34	3	0700	1	2	0.00	0.04	0.04	22	
35	9	1200	25	25	0.34	0.34	0.44	11	
36	14	0900	3	1	0.00	0.06	0.06	20	
37	14	2100	24	25	1.52	1.52	1.98	19	
38	19	0500	2	1	0.00	0.04	0.04	2	
39	19	1000	11	25	0.30	0.30	0.39	3	
40	20	0800	5	15	0.03	0.06	0.08	10	
41	28	1000	2	2	0.00	0.02	0.04	9	
42	28	2300	47	25	0.62	0.62	0.86	22	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Cage with max.*	*Storm recurrence frequency*
					January 1993				
43	1	2000	3	1	0.00	0.03	0.03	19	
44	2	0400	34	25	0.26	0.26	0.41	3	
45	3	2100	23	25	1.70	1.70	2.24	20	
46	6	1100	3	3	0.01	0.05	0.06	23	
47	7	1100	2	4	0.01	0.05	0.07	24	
48	7	2000	15	23	0.08	0.08	0.25	13	
49	9	1300	20	25	0.22	0.22	0.52	25	
50	12	0700	24	25	0.33	0.33	0.46	16	
51	20	0900	21	25	0.92	0.92	1.23	22	
					February 1993				
52	11	0800	30	25	0.70	0.70	1.10	12	
53	12	1800	23	23	0.12	0.13	0.24	14	
54	15	1500	18	25	0.15	0.15	0.27	19	
55	20	1400	24	25	0.44	0.44	0.75	11	
56	25	0500	26	25	0.23	0.23	0.69	19	
					March 1993				
57	2	0800	14	25	0.30	0.30	0.51	2	
58	3	0400	47	25	1.16	1.16	1.96	19	
59	5	1900	1	2	0.00	0.02	0.04	11	
60	7	1700	7	15	0.04	0.07	0.17	24	
61	9	2400	3	4	0.01	0.07	0.08	21	
62	15	2100	25	25	0.36	0.36	0.46	1	
63	19	0200	21	25	0.23	0.23	0.40	11	
64	20	0700	6	3	0.01	0.06	0.10	22	
65	21	1100	41	25	1.42	1.42	1.71	4	
66	30	2200	43	25	0.55	0.55	0.82	3	
					April 1993				
67	1	2200	10	2	0.02	0.19	0.19	24	
68	5	2400	4	2	0.01	0.11	0.12	20	
69	7	1000	37	25	0.80	0.80	0.95	14	
70	12	1900	4	4	0.01	0.07	0.10	24	
71	13	1400	16	25	1.18	1.18	1.87	21	
72	14	1300	34	25	1.62	1.62	2.09	15	
73	16	1100	9	17	0.04	0.06	0.11	20	
74	19	0300	7	25	0.13	0.13	0.22	18	
75	19	1600	26	25	0.78	0.78	1.09	17	
76	24	2100	13	25	0.25	0.25	0.39	18	
77	28	2400	13	25	0.19	0.19	0.28	5	
					May 1993				
78	1	0100	1	1	0.00	0.03	0.03	10	
79	1	1200	12	21	0.14	0.16	0.39	8	
80	2	1400	25	25	0.21	0.21	0.56	25	
81	4	0300	16	17	0.24	0.35	0.81	3	
82	5	0700	1	1	0.00	0.03	0.03	13	
83	5	1100	5	5	0.03	0.13	0.31	13	
84	6	0600	10	11	0.16	0.37	0.99	24	
85	10	1100	13	22	0.13	0.15	0.16	13	
86	11	1700	3	4	0.01	0.04	0.05	17	
87	12	1300	9	25	0.45	0.45	0.72	23	
88	18	1800	4	7	0.02	0.07	0.12	4	
89	21	1500	4	4	0.01	0.06	0.07	21	
90	22	1400	18	24	0.37	0.38	1.00	1	
91	23	1400	15	24	0.13	0.14	0.47	1	
92	28	2000	17	23	0.46	0.50	2.09	4	
93	30	0800	16	24	0.27	0.28	0.67	13	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					June 1993				
94	1	2200	13	25	0.41	0.41	0.68	3	
95	3	2300	19	25	1.05	1.05	1.39	5	
96	7	2300	13	24	0.31	0.32	0.82	3	
97	8	1600	4	24	0.17	0.18	0.33	12	
98	15	0300	4	8	0.03	0.09	0.15	3	
99	17	2100	12	25	0.26	0.26	0.53	20	
100	18	1500	18	20	0.19	0.23	0.68	24	
101	19	1400	9	25	0.48	0.48	1.19	19	
102	24	2100	13	25	1.34	1.34	2.09	13	
103	28	0700	9	19	0.39	0.52	1.57	8	
104	28	2400	4	6	0.06	0.24	0.87	9	
105	30	0100	8	25	1.52	1.52	3.29	16	5-Yr
106	30	2300	14	25	1.25	1.25	3.03	24	2-Yr
					July 1993				
107	2	1000	10	21	0.21	0.25	0.59	17	
108	5	1900	6	17	0.25	0.36	0.91	4	
109	7	0700	11	25	0.44	0.44	0.70	4	
110	7	2100	1	1	0.00	0.02	0.02	11	
111	9	2000	13	25	0.43	0.43	0.64	4	
112	10	1700	9	24	1.05	1.09	2.57	11	1-Yr
113	11	0700	4	15	0.04	0.07	0.13	13	
114	12	0700	6	3	0.01	0.05	0.07	22	
115	13	1400	7	25	0.81	0.81	2.22	12	1-Yr
116	15	0500	12	24	0.27	0.28	0.81	25	
117	15	2100	12	24	0.18	0.19	0.82	18	
118	16	1900	14	15	0.36	0.60	3.07	7	2-Yr
119	18	1500	6	25	0.89	0.89	1.58	11	
120	20	1600	16	25	0.37	0.37	0.70	5	
121	22	0500	10	25	0.70	0.70	1.29	18	
122	23	0400	14	25	1.49	1.49	3.37	18	2-Yr
123	24	0400	6	25	1.05	1.05	2.12	25	1-Yr
124	24	1300	6	25	0.27	0.27	0.77	22	
125	25	0400	5	21	0.06	0.07	0.13	13	
126	28	0500	6	21	0.14	0.16	0.54	21	
127	31	1400	11	25	0.87	0.87	2.08	9	
					August 1993				
128	1	0500	2	1	0.00	0.08	0.08	20	
129	1	1800	5	10	0.08	0.19	0.68	20	
130	3	1300	6	24	0.27	0.28	1.06	10	
131	5	2400	6	5	0.01	0.06	0.13	3	
132	9	1700	3	2	0.00	0.05	0.06	3	
133	10	0100	7	25	0.90	0.90	1.42	25	
134	11	2100	20	25	0.73	0.73	1.39	12	
135	15	2200	6	24	0.60	0.63	1.52	3	
136	16	1500	3	3	0.01	0.05	0.06	14	
137	17	1700	3	5	0.02	0.09	0.12	4	
138	18	0800	5	22	0.34	0.39	1.06	22	
139	18	2100	2	12	0.02	0.04	0.07	6	
140	19	1200	2	2	0.00	0.06	0.07	11	
141	19	1700	1	3	0.01	0.07	0.12	13	
142	22	0800	6	16	0.07	0.11	0.30	2	
143	23	1600	7	25	1.63	1.63	2.34	15	1-Yr
144	25	0500	5	8	0.05	0.15	0.34	8	
145	28	0500	2	7	0.02	0.07	0.15	5	
146	28	1700	5	21	0.13	0.16	0.34	22	
147	30	1400	2	3	0.04	0.31	0.54	3	
148	30	2000	16	25	1.04	1.04	1.88	25	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					September 1993				
149	2	0200	29	25	3.48	3.48	4.79	25	5-Yr
150	5	2200	15	25	1.07	1.07	1.99	3	
151	7	2400	6	24	0.09	0.10	0.15	15	
152	12	0300	6	25	0.18	0.18	0.37	11	
153	13	0600	36	25	5.36	5.36	6.86	19	50-Yr
154	22	0700	14	25	0.38	0.38	0.66	25	
155	25	0600	13	25	0.97	0.97	1.27	11	
156	26	1600	4	10	0.02	0.06	0.08	13	
					October 1993				
157	8	1400	17	25	0.88	0.88	1.38	23	
158	15	1600	31	25	1.74	1.74	2.33	2	
159	18	1400	10	14	0.03	0.05	0.10	21	
160	20	0900	14	25	0.32	0.32	0.47	17	
161	21	1600	8	18	0.06	0.08	0.13	22	
					November 1993				
162	12	1400	8	25	0.35	0.35	0.49	2	
163	13	2000	20	25	0.74	0.74	0.93	17	
164	16	2000	16	25	0.70	0.70	0.91	19	
165	24	0100	11	25	0.11	0.11	0.17	4	
166	24	1700	45	25	0.59	0.59	0.74	24	
167	27	1000	4	13	0.03	0.05	0.10	16	
168	27	2000	11	9	0.02	0.07	0.09	4	
					December 1993				
169	1	1900	15	25	0.28	0.28	0.48	23	
170	3	1300	3	1	0.00	0.10	0.10	14	
171	3	2000	10	25	0.15	0.15	0.23	2	
172	13	0100	4	16	0.03	0.05	0.09	4	
173	13	0900	42	25	0.51	0.51	0.68	19	
174	17	2200	5	20	0.06	0.07	0.18	23	
175	24	1900	12	13	0.05	0.10	0.16	11	
176	30	2400	1	2	0.00	0.04	0.04	2	
177	31	2200	3	9	0.02	0.04	0.06	11	
					January 1994				
178	2	2200	11	12	0.06	0.12	0.23	24	
179	10	1000	12	25	0.20	0.20	0.29	23	
180	13	1100	7	7	0.02	0.06	0.11	19	
181	16	1200	6	16	0.04	0.06	0.10	11	
182	25	0600	8	16	0.05	0.07	0.19	16	
183	25	1900	1	1	0.00	0.04	0.04	4	
184	26	2300	23	25	0.53	0.53	0.77	12	
185	29	1500	20	15	0.06	0.11	0.27	7	
					February 1994				
186	7	2000	21	13	0.04	0.08	0.22	19	
187	12	1100	5	5	0.01	0.05	0.06	14	
188	19	0400	30	25	0.76	0.76	0.97	3	
189	22	1500	33	25	0.52	0.52	0.94	25	
190	24	1700	23	25	0.26	0.26	0.44	23	
191	28	2000	7	17	0.06	0.08	0.20	25	
					March 1994				
192	6	2300	9	25	0.33	0.33	0.47	10	
193	12	2400	6	22	0.05	0.06	0.14	16	
194	13	1500	6	16	0.02	0.04	0.06	6	
195	21	0100	3	11	0.02	0.04	0.08	3	
196	23	1900	4	3	0.01	0.06	0.08	2	
197	26	0600	21	25	0.53	0.53	0.73	23	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					April 1994				
198	2	1500	8	25	0.24	0.24	0.31	3	
199	5	1500	6	17	0.03	0.05	0.08	15	
200	9	1500	17	25	0.43	0.43	0.62	2	
201	10	2300	38	25	2.03	2.03	2.64	25	
202	12	2300	9	16	0.03	0.05	0.12	1	
203	15	0300	8	25	0.39	0.39	0.59	22	
204	20	1900	17	25	0.34	0.34	1.12	25	
205	25	1800	6	24	0.09	0.09	0.21	1	
206	26	0400	4	5	0.01	0.03	0.05	4	
207	26	1800	5	6	0.04	0.16	0.35	22	
208	27	1700	22	25	0.70	0.70	0.87	19	
209	29	1700	22	25	0.72	0.72	0.92	19	
					May 1994				
210	5	1700	43	25	1.31	1.31	1.70	12	
211	9	1900	4	3	0.00	0.04	0.05	3	
212	11	1500	5	25	0.26	0.26	0.57	15	
213	14	0400	17	25	0.42	0.42	0.80	2	
214	24	1500	12	25	1.00	1.00	2.83	24	2-Yr
215	25	1800	7	25	0.10	0.10	0.17	17	
216	31	1400	7	4	0.01	0.08	0.13	10	
					June 1994				
217	1	1700	21	25	0.75	0.75	1.13	13	
218	5	1100	7	24	0.16	0.16	0.47	10	
219	5	2400	1	1	0.00	0.07	0.07	23	
220	7	1900	21	25	0.69	0.69	1.62	19	
221	11	2400	3	11	0.05	0.11	0.17	9	
222	12	1100	8	25	0.47	0.47	1.16	14	
223	14	1600	3	2	0.00	0.05	0.06	4	
224	16	1600	5	17	0.23	0.34	1.08	14	
225	20	1500	7	5	0.02	0.10	0.18	23	
226	23	0500	7	5	0.02	0.10	0.18	23	
227	23	1300	20	25	0.26	0.26	0.37	24	
228	25	1900	6	21	0.10	0.12	0.52	15	
229	26	0500	17	25	0.38	0.38	0.89	22	
					July 1994				
230	2	1100	11	25	1.02	1.02	1.99	19	
231	4	0500	6	24	0.21	0.22	0.64	9	
232	7	1500	7	11	0.09	0.21	0.34	20	
233	16	1700	8	25	0.61	0.61	2.62	19	2-Yr
234	19	0400	7	24	1.01	1.06	2.78	17	2-Yr
235	20	0400	1	1	0.00	0.05	0.05	21	
236	20	1500	10	25	0.46	0.46	0.85	7	
237	21	2200	2	7	0.02	0.07	0.09	7	
238	24	1500	3	3	0.00	0.04	0.06	10	
					August 1994				
239	1	1300	11	16	0.13	0.20	0.77	24	
240	3	1500	19	25	0.91	0.91	1.75	18	
241	4	1500	7	24	0.17	0.18	0.49	3	
242	13	1500	4	22	0.40	0.45	0.79	18	
243	16	1600	5	2	0.01	0.10	0.14	10	
244	19	2100	9	23	0.15	0.16	0.33	23	
245	26	0800	5	25	0.45	0.45	1.01	16	
246	28	1200	7	25	0.18	0.18	0.30	4	
247	29	1800	3	4	0.01	0.09	0.12	23	
248	29	2400	1	1	0.00	0.04	0.14	11	
249	30	0600	8	25	1.25	1.25	1.83	25	
250	30	2300	2	4	0.01	0.06	0.13	25	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					September 1994				
251	4	1200	14	25	0.31	0.31	0.56	13	
252	21	2100	11	25	0.26	0.26	0.34	2	
253	22	1200	17	25	0.56	0.56	0.86	3	
254	25	0500	7	17	0.06	0.09	0.18	25	
255	25	1500	7	15	0.20	0.33	1.01	7	
256	26	0300	7	18	0.11	0.16	0.36	**1**	
					October 1994				
257	6	0300	2	2	0.00	0.06	0.08	25	
258	7	0800	34	25	1.71	1.71	2.55	24	
259	18	1300	10	25	0.12	0.12	0.20	22	
260	22	1900	2	14	0.06	0.10	0.21	21	
261	24	0600	5	11	0.03	0.06	0.13	25	
262	25	2300	3	4	0.01	0.04	0.06	21	
263	30	2400	22	25	1.41	1.41	1.80	19	
					November 1994				
264	3	1500	3	25	0.21	0.21	0.56	23	
265	4	0200	2	2	0.01	0.09	0.09	22	
266	4	0800	6	25	0.26	0.26	0.45	1	
267	4	2000	27	25	1.02	1.02	1.94	25	
268	9	0100	16	25	0.28	0.28	0.63	23	
269	13	2000	7	25	0.12	0.12	0.24	7	
270	20	0300	8	25	0.18	0.18	0.25	19	
271	20	1900	10	25	0.53	0.53	0.66	22	
272	27	0300	11	25	0.76	0.76	1.08	2	
273	30	0900	2	2	0.00	0.04	0.05	14	
					December 1994				
274	2	1900	8	24	0.06	0.06	0.16	3	
275	3	0700	4	10	0.01	0.03	0.04	7	
276	6	0400	26	25	1.70	1.70	1.97	2	
277	8	1700	12	25	0.21	0.21	0.29	2	
278	16	0100	12	25	0.27	0.27	0.37	23	
279	20	0300	4	5	0.01	0.17	0.10	17	
280	20	1300	4	6	0.01	0.05	0.08	18	
281	31	2300	2	7	0.01	0.04	0.06	8	
					January 1995				
282	6	0100	17	17	0.06	0.08	0.16	11	
283	13	0400	30	25	1.61	1.61	2.18	19	
284	17	0500	3	6	0.01	0.04	0.06	19	
235	18	2000	26	25	0.81	0.81	1.03	15	
286	27	0400	27	25	0.41	0.41	0.76	19	
					February 1995				
287	3	0200	14	25	0.19	0.19	0.41	25	
288	14	1400	5	20	0.03	0.04	0.06	23	
289	26	1600	15	25	0.38	0.38	0.51	19	
					March 1995				
290	4	2200	10	25	0.46	0.46	0.56	19	
291	6	2000	17	25	0.86	0.86	1.22	21	
292	20	0300	6	25	0.22	0.22	0.40	21	
293	22	1800	2	16	0.03	0.05	0.10	6	
294	26	0400	4	25	0.06	0.06	0.09	1	
295	26	2100	10	25	0.31	0.31	0.42	19	
					April 1995				
296	3	0900	6	25	0.27	0.27	0.43	12	
297	6	1200	2	2	0.01	0.11	0.13	25	
298	6	1800	8	11	0.01	0.03	0.05	12	
299	7	2100	11	25	0.86	0.86	1.34	16	

Table V-1. (Continued)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					April 1995 (cont)				
300	9	0100	7	25	0.64	0.64	0.84	15	
301	9	2300	9	25	0.35	0.35	0.63	1	
302	10	1300	2	12	0.04	0.08	0.16	8	
303	10	2000	2	2	0.00	0.02	0.03	25	
304	11	1000	11	25	0.39	0.39	0.50	1	
305	15	1400	3	7	0.01	0.04	0.05	12	
306	16	2100	4	25	0.32	0.32	0.57	5	
307	17	2000	11	25	0.74	0.74	0.95	2	
308	20	0200	7	25	0.31	0.31	0.39	23	
309	20	2200	2	5	0.01	0.07	0.13	24	
310	23	1700	1	1	0.00	0.04	0.04	9	
311	24	1400	5	23	0.06	0.06	0.12	7	
312	26	0600	9	25	0.11	0.11	0.20	2	
313	26	2200	8	25	0.57	0.57	0.79	22	
314	29	1200	11	25	0.17	0.17	0.25	22	
					May 1995				
315	3	1500	18	24	0.07	0.08	0.18	22	
316	7	1900	17	25	1.22	1.22	1.76	4	
317	8	1600	14	25	0.59	0.59	1.18	1	
318	9	1600	4	16	0.09	0.14	0.47	3	
319	10	0200	12	21	0.12	0.14	0.45	17	
320	12	2000	12	25	0.40	0.40	0.50	7	
321	13	1800	1	2	0.01	0.09	0.12	2	
322	16	0500	7	23	0.08	0.09	0.39	25	
323	16	1500	12	25	2.31	2.31	4.22	19	10-Yr
324	17	0800	21	25	0.88	0.88	1.03	9	
325	18	1000	9	25	0.75	0.75	1.85	18	
326	23	1000	6	25	0.23	0.23	0.46	9	
327	23	1900	24	25	2.77	2.77	3.78	19	5-Yr
328	26	2200	8	25	0.08	0.08	0.13	18	
329	27	1000	15	25	0.73	0.73	1.13	22	
330	28	0700	1	1	0.00	0.02	0.02	24	
					June 1995				
331	2	0800	8	12	0.03	0.07	0.13	10	
332	8	0700	5	25	0.37	0.37	0.70	13	
333	9	0900	5	22	0.11	0.12	0.26	16	
334	9	2300	4	7	0.03	0.12	0.28	3	
335	11	1300	4	14	0.02	0.03	0.04	1	
336	20	1800	11	25	0.35	0.35	1.11	16	
337	21	1900	6	25	0.55	0.55	2.67	19	2-Yr
338	23	1400	6	9	0.02	0.06	0.14	23	
339	24	0100	6	10	0.27	0.68	2.52	22	2-Yr
340	24	1600	5	9	0.15	0.40	1.91	2	
341	25	1400	6	16	0.06	0.09	0.35	17	
342	26	0200	16	24	0.23	0.24	0.90	1	
343	27	1100	11	15	0.06	0.10	0.42	19	
344	28	1400	7	23	0.30	0.33	1.10	17	
345	29	1100	11	24	0.10	0.10	0.42	24	
					July 1995				
346	4	0300	14	23	0.34	0.37	1.09	1	
347	4	2300	5	18	0.09	0.13	0.35	4	
348	5	2100	4	18	0.07	0.09	0.37	1	
349	9	1300	5	9	0.02	0.06	0.14	16	
350	16	1400	5	24	0.26	0.27	0.94	12	
351	18	2000	5	2	0.02	0.20	0.31	10	
352	20	0700	10	23	0.21	0.23	0.45	8	

Table V-1. (Concluded)

Storm number	*Storm date*	*Start time*	*Storm duration*	*Number gages*	*Network avg.*	*Storm avg.*	*Network max.*	*Gage with max.*	*Storm recurrence frequency*
					July 1995 (cont)				
353	20	2000	4	3	0.00	0.03	0.03	1	
354	21	0800	6	25	0.44	0.44	0.85	12	
355	23	0600	6	25	0.46	0.46	1.10	18	
356	23	2100	4	21	0.13	0.16	0.75	19	
357	24	1600	5	17	0.19	0.28	0.84	24	
358	25	1300	15	22	0.21	0.24	0.56	24	
359	26	1700	4	18	0.19	0.26	0.74	20	
360	27	2000	5	16	0.05	0.08	0.21	14	
361	31	2000	8	22	0.17	0.20	0.65	3	
					August 1995				
362	1	1500	5	15	0.07	0.11	0.55	22	
363	2	0200	17	25	0.64	0.64	0.98	19	
364	3	0100	11	23	0.22	0.24	0.57	23	
365	3	2300	15	23	0.28	0.31	1.29	22	
366	4	2100	1	1	0.00	0.01	0.01	25	
367	5	0200	5	9	0.02	0.06	0.12	11	
368	6	1800	2	1	0.00	0.04	0.04	24	
369	6	2300	3	13	0.05	0.10	0.29	12	
370	8	0400	3	4	0.01	0.08	0.23	19	
371	8	1200	6	25	0.45	0.45	1.15	7	
372	9	1900	12	25	0.55	0.55	2.26	12	1-Yr
373	13	1900	3	1	0.01	0.15	0.15	2	
374	14	1100	2	1	0.00	0.03	0.03	10	
375	15	1600	8	20	0.17	0.22	0.68	1	
376	16	1100	1	1	0.00	0.02	0.02	18	
377	16	1500	7	12	0.03	0.07	0.17	24	
378	17	0100	7	25	0.26	0.26	0.51	23	
379	24	1500	2	1	0.00	0.09	0.09	10	

Table V-2. Precipitation Received at each Station from each Storm during the Observation Period (September 1992-August 1995)

Strut ft	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	090192	0900	8	0.50	0.65	0.13	0.94	0.59	0.87	0.16	0.22	0.16	0.32	1.07	0.30	0.04	0.37	1.03	0.91	0.25	0.13	0.69	0.46	0.27	0.53	0.40	0.18	0.13
2	090292	0300	11	0.28	Q.22	0.23	0.38	0.19	0.20	0.14	0.33	0.24	0.21	0.19	0.16	0.21	0.29	0.20	0.15	0.16	0.20	0.35	0.25	0.24	0.21	0.19	0.23	0.32
3	090292	2100	3	0.00	0.00	0.13	0.00	0.00	0.00	0.03	0.04	0.12	0.19	0.16	0.28	0.00	0.08	0.07	0.09	0.14	0.00	0.00	0.00	0.00	0.02	0.09	0.00	0.00
4	090792	2100	7	0.42	0.41	0.61	0.74	0.86	0.93	0.40	0.54	0.94	0.72	0.40	0.46	0.66	0.50	0.55	0.59	0.42	1.14	0.94	1.08	0.88	0.83	0.40	1.83	1.26
5	090992	0300	20	1.37	1.43	1.21	1.45	1.46	1.23	1.45	1.68	1.68	1.53	1.62	1.42	1.56	1.89	1.33	1.48	1.43	1.31	0.82	0.90	1.11	1.24	1.36	0.82	0.69
6	091492	1400	2	0.00	0.00	0.00	0.13	0.25	0.04	0.05	0.00	0.00	0.14	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
7	091892	0600	6	0.06	0.06	0.02	0.05	0.05	0.02	0.03	0.10	0.07	0.04	0.04	0.03	0.00	0.03	0.01	0.04	0.04	0.03	0.02	0.07	0.00	0.05	0.07	0.12	0.14
8	091892	1800	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.09	0.00
9	092092	0800	24	1.28	1.15	0.94	1.27	1.42	0.83	1.27	1.21	0.99	1.33	1.32	0.99	1.20	1.00	1.12	0.96	0.87	1.17	1.12	0.94	1.13	0.92	0.71	1.03	0.84
10	092592	2200	24	0.23	0.15	0.18	0.33	0.21	0.17	0.12	0.28	0.24	0.21	0.15	0.14	0.28	0.29	0.21	0.11	0.13	0.37	0.38	0.31	0.17	0.15	0.21	0.36	0.35
11	100892	0300	37	0.32	0.30	0.46	0.33	0.32	0.39	0.35	0.40	0.35	0.50	0.43	0.43	0.28	0.26	0.26	0.27	0.30	0.29	0.29	0.19	0.29	0.33	0.30	0.41	0.41
12	100992	2400	8	0.14	0.14	0.07	0.17	0.10	0.08	0.05	0.11	0.13	0.05	0.07	0.09	0.07	0.06	0.07	0.06	0.08	0.04	0.00	0.03	0.00	0.03	0.00	0.01	0.00
13	101092	1600	3	0.09	0.06	0.05	0.07	0.05	0.15	0.05	0.02	0.04	0.08	0.20	0.05	0.00	0.03	0.05	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	101492	2300	11	0.90	0.82	0.64	0.94	0.99	1.08	0.85	0.83	1.14	1.25	1.24	1.04	0.53	1.09	0.99	1.05	1.00	0.36	0.56	0.62	0.65	0.88	1.14	0.26	0.33
15	101592	2000	3	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.02	0.03	0.00	0.01	0.03	0.05	0.05	0.05	0.04	0.07	0.03	0.04	0.06	0.09	0.09	0.16	0.00	0.06
16	101992	2200	6	0.10	0.10	0.06	0.14	0.14	0.11	0.09	0.16	0.13	0.11	0.12	0.12	0.19	0.17	0.22	0.16	0.14	0.30	0.26	0.24	0.24	0.24	0.19	0.43	0.42
17	102892	1900	4	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.03	0.02	0.02	0.03	0.02	0.05	0.07	0.04	0.04	0.05	0.00	0.05	0.00	0.04	0.05	0.04	0.00	0.00
18	102992	0400	6	0.10	0.09	0.06	0.09	0.09	0.05	0.05	0.07	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	102992	1800	19	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.03	0.05	0.06	0.06	0.07	0.05	0.07	0.11	0.04	0.06	0.13	0.22	0.17	0.17	0.21	0.29	0.25
20	103192	1600	38	1.52	1.71	1.49	1.29	2.22	2.32	1.93	1.57	1.97	3.21	3.39	2.37	2.08	1.54	3.08	2.21	2.80	1.87	2.44	2.77	2.59	1.95	1.93	1.74	2.39
21	110392	0900	14	0.59	0.59	0.60	0.57	0.62	0.58	0.70	0.54	0.61	0.62	0.65	0.73	0.56	0.59	0.66	0.68	0.77	0.48	0.68	0.59	0.65	0.81	0.76	0.52	0.57
22	110892	2300	12	0.33	0.32	0.30	0.28	0.33	0.26	0.23	0.28	0.26	0.22	0.25	0.20	0.21	0.23	0.16	0.18	0.19	0.13	0.20	0.14	0.18	0.28	0.26	0.22	0.18
23	110992	1900	16	0.37	0.51	0.71	0.42	0.69	0.78	0.62	0.47	0.61	0.89	0.79	0.81	0.81	0.70	0.79	0.71	0.83	0.87	1.02	0.72	0.66	0.70	0.62	0.84	0.74
24	111092	1700	15	0.11	0.08	0.07	0.07	0.09	0.07	0.11	0.10	0.11	0.11	0.22	0.15	0.13	0.18	0.15	0.16	0.19	0.14	0.18	0.19	0.30	0.19	0.16	0.20	0.27
25	111192	1700	23	0.73	0.61	0.79	0.67	0.68	0.75	0.46	0.67	0.59	0.73	0.62	0.52	0.72	0.56	0.55	0.43	0.45	0.64	0.76	0.50	0.42	0.45	0.38	0.53	0.40
26	111792	1900	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03
27	111892	0200	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.09
28	111892	1500	18	0.52	0.29	0.41	0.62	0.52	0.51	0.45	0.63	0.59	0.57	0.48	0.48	0.67	0.55	0.56	0.54	0.43	0.49	0.84	0.46	0.47	0.37	0.36	0.46	0.61
29	111992	2400	12	0.34	0.18	0.17	0.24	0.28	0.18	0.16	0.22	0.18	0.21	0.18	0.15	0.16	0.15	0.23	0.19	0.08	0.11	0.23	0.22	0.19	0.17	0.14	0.16	0.19
30	112092	1600	11	0.49	0.44	0.37	0.54	0.43	0.39	0.40	0.60	0.48	0.46	0.38	0.35	0.57	0.44	0.45	0.37	0.36	0.61	0.57	0.44	0.42	0.35	0.35	0.66	0.63
31	112292	0400	25	0.56	0.39	0.49	0.53	0.59	0.63	0.39	0.52	0.60	0.75	0.73	0.74	0.54	0.60	0.68	0.89	0.87	0.54	0.86	0.66	0.68	0.82	0.77	0.66	0.79
32	112592	0300	20	0.52	0.37	0.41	0.47	0.40	0.30	0.16	0.43	0.39	0.35	0.26	0.23	0.45	0.38	0.34	0.33	0.36	0.41	0.51	0.42	0.37	0.41	0.44	0.30	0.46
33	113092	1500	6	0.00	0.00	0.00	0.02	0.05	0.00	0.00	0.06	0.03	0.03	0.00	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	120392	0700	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.00	0.00
35	120992	1200	25	0.38	0.27	0.31	0.34	0.24	0.27	0.30	0.33	0.34	0.35	0.44	0.25	0.41	0.32	0.37	0.34	0.36	0.31	0.37	0.33	0.36	0.37	0.43	0.40	0.41
36	121492	0900	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
37	121492	2100	24	1.43	1.34	1.31	1.60	1.53	1.54	1.30	1.60	1.73	1.48	1.62	1.16	1.61	1.62	1.45	1.22	1.29	1.65	1.98	1.60	1.53	1.48	1.41	1.81	1.59
38	121992	0500	2	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	121992	1000	11	0.33	0.34	0.39	0.36	0.32	0.37	0.32	0.34	0.37	0.27	0.30	0.26	0.30	0.37	0.24	0.29	0.31	0.22	0.33	0.28	0.25	0.16	0.15	0.30	0.28
40	122092	0800	5	0.04	0.04	0.06	0.00	0.07	0.06	0.06	0.00	0.00	0.08	0.07	0.07	0.07	0.02	0.08	0.06	0.00	0.02	0.00	0.00	0.03	0.00	0.00	0.00	0.00
41	122892	1000	2	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	122892	2300	47	0.67	0.72	0.68	0.60	0.64	0.48	0.66	0.48	0.51	0.75	0.75	0.69	0.70	0.70	0.59	0.71	0.56	0.55	0.59	0.55	0.63	0.86	0.70	0.37	0.29
43	010193	2000	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Sum#	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
44	010293	0400	34	0.31	0.30	0.41	0.24	0.29	0.24	0.27	0.22	0.24	0.17	0.29	0.11	0.40	0.21	0.29	0.25	0.27	0.22	0.33	0.33	0.28	0.25	0.17	0.21	0.29
45	010393	2100	23	1.65	1.58	1.70	1.71	1.62	1.75	1.64	1.67	1.71	1.63	1.80	1.47	1.69	1.79	1.52	1.62	1.81	1.62	1.71	2.24	1.70	1.85	1.83	1.79	1.46
46	010693	1100	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.06	0.00	0.00
47	010793	1100	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.00
48	010793	2000	15	0.04	0.04	0.09	0.07	0.08	0.06	0.06	0.09	0.06	0.10	0.05	0.08	0.25	0.13	0.08	0.08	0.09	0.00	0.00	0.05	0.07	0.05	0.05	0.09	0.13
49	010993	1300	20	0.17	0.18	0.23	0.10	0.11	0.09	0.08	0.19	0.33	0.25	0.22	0.44	0.12	0.48	0.17	0.17	0.33	0.08	0.36	0.15	0.18	0.19	0.17	0.23	0.52
50	01 1293	0700	24	0.33	0.42	0.43	0.30	0.26	0.37	0.43	0.20	0.23	0.40	0.44	0.42	0.10	0.23	0.33	0.46	0.38	0.06	0.35	0.35	0.42	0.46	0.39	0.23	0.21
51	012093	0900	21	1.14	1.05	0.69	0.81	1.03	0.96	0.72	0.76	0.87	0.94	1.02	0.81	0.89	0.67	0.85	0.98	1.02	0.80	1.10	0.84	0.99	1.23	1.11	0.77	0.83
52	021193	0800	30	0.85	0.66	0.38	0.87	0.85	0.92	0.50	0.48	0.53	0.72	1.03	1.10	0.56	0.57	0.60	0.75	0.97	0.49	0.84	0.56	0.58	0.57	0.58	0.67	0.88
53	021293	1800	23	0.21	0.00	0.06	0.12	0.04	0.08	0.04	0.13	0.11	0.11	0.08	0.00	0.14	0.24	0.20	0.18	0.10	0.21	0.18	0.19	0.12	0.06	0.08	0.14	0.12.
54	021593	1500	18	0.11	0.05	0.16	0.14	0.06	0.12	0.14	0.13	0.15	0.21	0.20	0.09	0.21	0.17	0.18	0.15	0.12	0.07	0.27	0.12	0.15	0.17	0.19	0.20	0.14
55	022093	1400	24	0.65	0.44	0.33	0.41	0.49	0.40	0.36	0.41	0.51	0.49	0.75	0.36	0.53	0.47	0.42	0.42	0.42	0.40	0.52	0.40	0.36	0.31	0.48	0.33	0.35
56	022593	0500	26	0.18	0.09	0.17	0.12	0.17	0.17	0.09	0.20	0.17	0.19	0.17	0.35	0.42	0.32	0.23	0.23	0.34	0.18	0.69	0.14	0.12	0.26	0.23	0.13	0.41
57	030293	0800	14	0.48	0.51	0.31	0.30	0.35	0.29	0.21	0.33	0.22	0.32	0.34	0.24	0.33	0.16	0.23	0.24	0.26	0.31	0.36	0.21	0.25	0.29	0.20	0.33	0.34
58	030393	0400	47	0.61	0.28	0.26	1.12	1.06	0.87	0.51	1.22	1.39	1.32	1.25	1.00	1.28	1.42	1.33	1.32	1.22	1.39	1.96	1.42	1.10	1.19	1.09	1.55	1.86
59	030593	1900	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
60	030793	1700	7	0.03	0.00	0.03	0.17	0.05	0.02	0.04	0.00	0.03	0.05	0.00	0.05	0.05	0.03	0.00	0.00	0.00	0.08	0.06	0.00	0.00	0.00	0.00	0.17	0.13
61	030993	2400	3	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.08	0.00	0.00	0.00	0.00
62	031593	2100	25	0.46	0.45	0.45	0.38	0.44	0.40	0.33	0.29	0.41	0.39	0.36	0.29	0.35	0.42	0.38	0.40	0.41	0.25	0.29	0.27	0.32	0.28	0.28	0.42	0.30
63	031993	0200	21	0.16	0.10	0.16	0.15	0.19	0.21	0.19	0.12	0.20	0.26	0.40	0.19	0.28	0.26	0.28	0.21	0.23	0.21	0.30	0.27	0.24	0.35	0.36	0.29	0.22
64	032093	0700	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.04	0.00	0.00
65	032193	1100	41	1.69	1.46	1.40	1.71	1.63	1.44	1.29	1.61	1.52	1.50	1.38	1.12	1.68	1.45	1.44	1.20	1.16	1.43	1.58	1.27	1.22	1.18	1.00	1.49	1.53
66	033093	2200	43	0.77	0.73	0.82	0.69	0.56	0.56	0.61	0.79	0.74	0.43	0.50	0.58	0.62	0.70	0.53	0.37	0.36	0.46	0.81	0.44	0.32	0.32	0.24	0.46	0.43
67	040193	2200	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19
68	040593	2400	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
69	040793	1000	37	0.91	0.89	0.95	0.79	0.84	0.85	0.72	0.76	0.90	0.90	0.93	0.74	0.77	0.95	0.77	0.76	0.76	0.72	0.95	0.68	0.72	0.72	0.64	0.63	0.64
70	041293	1900	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.10	0.08
71	041393	1400	16	0.82	0.75	0.81	0.87	0.76	0.95	0.84	0.82	0.76	1.21	1.19	0.96	1.27	0.83	1.25	1.27	1.32	1.44	1.78	1.42	1.87	1.83	1.56	1.38	1.60
72	041493	1300	34	1.69	1.63	1.46	1.74	2.07	1.67	1.61	1.13	1.85	1.55	1.56	1.85	1.12	1.86	2.09	1.62	1.68	1.31	1.24	1.66	1.96	1.87	1.69	1.40	1.26
73	041693	1100	9	0.08	0.00	0.06	0.00	0.03	0.07	0.06	0.00	0.03	0.05	0.00	0.04	0.00	0.06	0.04	0.00	0.05	0.09	0.10	0.11	0.00	0.00	0.06	0.02	0.05
74	041993	0300	7	0.18	0.14	0.08	0.14	0.17	0.12	0.10	0.13	0.12	0.15	0.12	0.10	0.15	0.10	0.12	0.12	0.10	0.22	0.11	0.18	0.14	0.10	0.09	0.13	0.15
75	041993	1600	26	0.66	0.52	0.73	0.40	0.71	0.80	0.52	0.81	0.67	0.85	0.61	0.83	0.87	0.77	0.70	0.83	1.09	0.80	0.74	0.93	0.97	1.06	0.91	0.89	0.75
76	042493	2100	13	0.25	0.29	0.14	0.19	0.24	0.16	0.17	0.23	0.24	0.21	0.21	0.22	0.25	0.29	0.24	0.25	0.25	0.39	0.25	0.38	0.20	0.27	0.26	0.34	0.24
77	042893	2400	13	0.18	0.09	0.21	0.20	0.28	0.19	0.16	0.22	0.19	0.19	0.26	0.16	0.26	0.20	0.20	0.18	0.17	0.12	0.22	0.20	0.19	0.08	0.11	0.21	0.18
78	050193	0100	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	050193	1200	12	0.14	0.17	0.08	0.16	0.12	0.12	0.00	0.39	0.15	0.30	0.00	0.06	0.23	0.22	0.25	0.09	0.02	0.15	0.16	0.22	0.21	0.03	0.00	0.00	0.11
80	050293	1400	25	0.15	0.11	0.10	0.49	0.13	0.14	0.11	0.28	0.11	0.14	0.15	0.11	0.13	0.26	0.12	0.18	0.22	0.46	0.22	0.14	0.14	0.19	0.21	0.46	0.56
81	050493	0300	16	0.35	0.54	0.81	0.23	0.41	0.12	0.79	0.00	0.06	0.08	0.24	0.68	0.00	0.00	0.13	0.32	0.57	0.04	0.00	0.00	0.00	0.00	0.44	0.07	0.00
82	050593	0700	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	050593	1100	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.10	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.05
84	050693	0600	10	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.33	0.06	0.00	0.84	0.47	0.25	0.05	0.14	0.00	0.99	0.59
85	051093	1100	13	0.04	0.09	0.06	0.06	0.00	0.09	0.10	0.67	0.00	0.04	0.05	0.03	0.68	0.20	0.11	0.05	0.00	0.05	0.22	0.08	0.28	0.05	0.06	0.20	0.05
86	051193	1700	3	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.03	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm#	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
87	05 1293	1300	9	0.39	0.41	0.51	0.37	0.44	0.61	0.30	0.46	0.39	0.42	0.64	0.44	0.45	0.40	0.43	0.53	0.61	0.42	0.33	0.36	0.28	0.51	0.72	0.53	0.29
88	051893	1800	4	0.00	0.00	0.03	0.12	0.00	0.00	0.00	0.00	0.05	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05
89	052193	1500	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00
90	052293	1400	18	1.00	0.88	0.77	0.52	0.62	0.38	0.46	0.28	0.41	0.34	0.42	0.30	0.43	0.35	0.36	0.37	0.30	0.11	0.14	0.10	0.15	0.21	0.13	0.13	0.00
91	052393	1400	15	0.47	0.43	0.21	0.32	0.11	0.13	0.14	0.07	0.10	0.07	0.12	0.06	0.04	0.05	0.05	0.10	0.05	0.12	0.06	0.10	0.15	0.08	0.00	0.10	0.14
92	052893	2000	17	0.67	0.63	0.71	2.09	1.33	0.93	0.70	0.50	0.60	0.43	0.48	0.75	0.14	0.28	0.29	0.26	0.26	0.03	0.06	0.08	0.04	0.10	0.15	0.00	0.00
93	053093	0800	16	0.23	0.20	0.14	0.35	0.07	0.11	0.07	0.33	0.30	0.07	0.24	0.11	0.67	0.57	0.52	0.16	0.20	0.23	0.22	0.57	0.46	0.49	0.29	0.00	0.04
94	060193	2200	13	0.66	0.66	0.68	0.56	0.55	0.50	0.56	0.31	0.35	0.50	0.62	0.53	0.27	0.19	0.30	0.37	0.45	0.31	0.30	0.32	0.21	0.23	0.25	0.22	0.27
95	060393	2300	19	0.97	0.84	1.05	0.97	1.39	1.12	0.95	1.20	1.17	1.14	1.08	1.18	1.15	1.17	1.11	0.95	1.09	1.31	0.99	0.78	0.62	0.87	1.27	0.91	0.96
96	060793	2300	13	0.29	0.12	0.82	0.21	0.14	0.16	0.67	0.29	0.11	0.26	0.56	0.42	0.10	0.10	0.60	0.29	0.56	0.17	0.22	0.40	0.35	0.46	0.15	0.00	0.18
97	060893	1600	4	0.11	0.12	0.21	0.07	0.12	0.19	0.29	0.05	0.13	0.17	0.25	0.33	0.09	0.15	0.18	0.24	0.31	0.11	0.13	0.00	0.23	0.25	0.31	0.13	0.08
98	061593	0300	4	0.00	0.00	0.15	0.12	0.06	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02	0.06	0.00	0.00	0.00	0.00	0.00
99	061793	2100	12	0.44	0.52	0.35	0.13	0.13	0.30	0.30	0.15	0.12	0.38	0.28	0.20	0.13	0.20	0.38	0.16	0.19	0.18	0.25	0.53	0.24	0.23	0.23	0.21	0.21
100	061893	1500	18	0.26	0.50	0.45	0.05	0.36	0.14	0.26	0.06	0.01	0.04	0.00	0.00	0.46	0.08	0.17	0.00	0.00	0.41	0.05	0.27	0.11	0.12	0.00	0.68	0.19
101	061993	1400	9	0.56	0.35	0.18	0.39	0.29	0.26	0.61	0.41	0.28	0.60	0.43	0.41	0.67	0.90	0.82	0.40	0.41	1.01	1.19	0.39	0.37	0.16	0.20	0.30	0.44
102	062493	2100	13	1.02	0.85	0.87	1.50	1.39	1.04	0.88	2.05	1.59	1.36	1.18	1.03	2.09	1.52	1.71	0.96	1.05	1.79	1.98	1.60	1.32	0.76	1.19	1.58	1.22
103	062893	0700	9	0.10	0.07	0.10	0.34	0.27	0.16	0.14	1.57	1.19	0.84	0.40	0.43	0.33	0.77	0.86	0.94	0.75	0.00	0.00	0.00	0.00	0.24	0.33	0.00	0.00
104	062893	2400	4	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.87	0.05	0.03	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
105	063093	0100	8	1.11	1.09	1.17	1.68	1.34	0.92	0.99	2.06	1.86	1.94	1.82	1.48	1.49	1.36	1.75	3.29	2.24	1.27	1.50	1.66	1.22	1.04	1.30	1.23	1.18
106	063093	2300	14	0.57	0.52	1.30	0.69	0.60	0.73	0.90	0.83	1.00	1.03	0.73	1.06	1.25	1.37	1.69	1.21	1.29	1.11	1.38	1.50	1.47	2.17	1.87	3.03	2.07
107	070293	1000	10	0.12	0.19	0.52	0.07	0.08	0.04	0.43	0.00	0.00	0.24	0.22	0.36	0.03	0.09	0.27	0.47	0.59	0.11	0.00	0.19	0.41	0.35	0.33	0.00	0.09
108	070593	1900	6	0.76	0.75	0.76	0.91	0.86	0.46	0.13	0.56	0.27	0.15	0.08	0.05	0.15	0.05	0.06	0.12	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109	070793	0700	11	0.57	0.43	0.35	0.70	0.41	0.22	0.33	0.50	0.39	0.38	0.28	0.16	0.49	0.62	0.41	0.49	0.21	0.51	0.66	0.62	0.39	0.39	0.43	0.52	0.61
110	070793	2100	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	070993	2000	13	0.63	0.60	0.44	0.64	0.55	0.35	0.34	0.54	0.49	0.36	0.34	0.37	0.30	0.42	0.38	0.41	0.27	0.35	0.48	0.44	0.36	0.28	0.46	0.54	0.48
112	071093	1700	9	1.21	1.01	0.56	0.76	0.75	0.77	0.99	0.64	1.54	2.19	2.57	1.62	1.30	1.44	1.53	1.75	1.97	0.56	0.52	0.63	0.68	0.32	0.75	0.00	0.12
113	07 1193	0700	4	0.08	0.08	0.07	0.08	0.05	0.10	0.03	0.08	0.07	0.04	0.00	0.00	0.13	0.06	0.06	0.00	0.00	0.08	0.00	0.00	0.00	0.09	0.00	0.00	0.00
114	07 1293	0700	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.07	0.00	0.00	0.00
115	071393	1400	7	1.09	1.55	1.06	1.33	1.31	0.68	1.80	1.41	0.45	0.33	0.71	2.22	0.22	0.11	0.32	1.67	1.30	0.21	0.14	0.16	0.42	0.57	0.74	0.19	0.30
116	071593	0500	12	0.08	0.00	0.09	0.11	0.18	0.18	0.17	0.25	0.28	0.30	0.24	0.19	0.34	0.29	0.24	0.24	0.25	0.31	0.26	0.20	0.20	0.39	0.28	0.79	0.91
117	071593	2100	12	0.10	0.08	0.07	0.16	0.12	0.09	0.10	0.23	0.21	0.16	0.09	0.12	0.42	0.12	0.02	0.00	0.10	0.82	0.12	0.13	0.11	0.10	0.02	0.42	0.70
118	071693	1900	14	1.09	1.14	0.96	0.52	0.27	0.77	3.07	0.09	0.06	0.00	0.00	0.46	0.00	0.00	0.00	0.10	0.16	0.00	0.00	0.05	0.00	0.00	0.00	0.11	0.08
119	071893	1500	6	0.61	0.52	1.56	0.71	1.10	1.27	0.97	0.53	0.34	1.26	1.58	0.87	0.62	1.48	1.14	0.87	0.48	0.36	1.28	1.13	0.69	0.71	0.30	1.00	0.95
120	072093	1600	16	0.39	0.42	0.41	0.44	0.70	0.66	0.60	0.29	0.36	0.29	0.37	0.32	0.40	0.29	0.31	0.27	0.11	0.55	0.29	0.14	0.43	0.09	0.12	0.66	0.29
121	072293	0500	10	0.60	0.43	0.45	0.69	0.74	0.78	0.39	0.68	0.84	0.78	0.55	0.51	0.89	0.83	0.68	0.57	0.54	1.29	0.73	0.67	0.63	0.64	0.50	1.14	0.96
122	072393	0400	14	1.95	2.37	2.62	1.81	1.66	1.72	1.13	1.30	1.03	0.85	0.87	0.81	1.53	1.03	0.94	0.82	1.04	3.37	2.67	1.35	0.89	0.66	0.70	1.82	2.19
123	072493	0400	6	1.00	1.13	1.02	1.19	0.92	0.77	0.78	1.03	1.18	0.75	0.55	0.58	1.79	0.93	0.63	0.45	0.37	1.64	1.73	1.51	1.16	0.72	0.24	1.96	2.12
124	072493	1300	6	0.05	0.10	0.11	0.19	0.08	0.09	0.15	0.07	0.08	0.04	0.15	0.25	0.13	0.06	0.40	0.47	0.57	0.18	0.21	0.36	0.68	0.77	0.50	0.51	0.45
125	072593	0400	5	0.00	0.06	0.00	0.05	0.05	0.03	0.08	0.05	0.00	0.05	0.07	0.07	0.13	0.08	0.05	0.08	0.07	0.00	0.07	0.08	0.06	0.05	0.08	0.08	0.12
126	072893	0500	6	0.06	0.07	0.08	0.00	0.09	0.05	0.09	0.19	0.31	0.21	0.39	0.54	0.32	0.51	0.07	0.11	0.09	0.08	0.00	0.01	0.06	0.00	0.00	0.09	0.04
127	073193	1400	11	0.36	0.31	0.22	0.87	0.69	0.27	0.34	0.93	2.08	0.10	0.55	0.24	1.01	1.85	1.43	0.86	0.32	0.80	1.41	1.58	1.71	1.51	0.88	0.62	0.81
128	080193	0500	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm #	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
129	080193	1800	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.31	0.17	0.08	0.05	0.30	0.00	0.06	0.68	0.19	0.00	0.04	0.00	0.00
130	080393	1300	6	0.30	0.19	1.04	0.53	0.42	0.29	0.47	0.05	0.20	1.06	0.17	0.14	0.03	0.04	0.03	0.00	0.08	0.07	0.12	0.28	0.40	0.35	0.36	0.06	0.04
131	080593	2400	6	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.04	0.03	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
132	080993	1700	3	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
133	081093	0100	7	0.97	1.30	0.77	0.62	0.95	0.78	0.75	0.56	0.62	0.68	0.81	0.81	0.81	0.71	1.17	0.76	0.87	1.11	1.29	1.16	0.92	0.58	0.68	1.34	1.42
134	081193	2100	20	0.48	0.45	1.38	0.46	0.54	0.62	0.59	0.61	0.73	0.59	0.70	1.39	0.67	0.58	0.71	1.33	1.23	0.46	0.58	0.52	0.79	0.82	1.02	0.52	0.51
135	081593	2200	6	1.34	1.26	1.52	1.19	0.82	0.50	1.50	1.16	1.27	0.45	0.16	0.72	0.87	0.83	0.21	0.07	0.37	0.16	0.11	0.26	0.04	0.00	0.05	0.10	0.10
136	081693	1500	3	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
137	081793	1700	3	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.08	0.10	0.00	0.00	0.00
138	081893	0800	5	0.25	0.07	0.00	0.31	0.37	0.10	0.08	0.74	0.66	0.45	0.17	0.05	0.36	0.96	0.44	0.39	0.06	0.07	0.34	0.85	0.77	1.06	0.06	0.00	0.00
139	081893	2100	2	0.04	0.02	0.04	0.05	0.03	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
140	081993	1200	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
141	081993	1700	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
142	082293	0800	6	0.14	0.30	0.08	0.10	0.06	0.04	0.08	0.00	0.03	0.00	0.00	0.07	0.00	0.00	0.07	0.21	0.16	0.04	0.06	0.00	0.05	0.00	0.30	0.00	0.00
143	082393	1600	7	1.70	1.77	2.17	1.29	1.79	1.58	1.83	1.18	1.80	2.30	2.22	1.76	2.00	2.11	2.34	1.58	1.47	1.97	1.06	2.00	1.30	0.98	0.67	1.25	0.56
144	082593	0500	5	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.34	0.16	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.13	0.08
145	082893	0500	2	0.11	0.09	0.04	0.00	0.15	0.04	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
146	082893	1700	5	0.00	0.00	0.15	0.17	0.00	0.04	0.06	0.11	0.00	0.08	0.22	0.12	0.07	0.04	0.11	0.32	0.17	0.12	0.17	0.10	0.25	0.34	0.25	0.16	0.21
147	08 3093	1400	2	0.00	0.04	0.54	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148	083093	2000	16	0.48	0.57	0.95	0.31	0.57	0.64	1.88	0.53	0.70	1.08	1.17	1.63	1.08	0.92	1.11	0.99	1.01	1.49	1.26	1.15	1.24	1.29	0.84	1.68	1.49
149	090293	0200	29	3.03	2.90	3.15	3.01	2.85	3.04	2.84	3.26	3.39	3.01	3.86	3.71	3.54	3.80	4.41	3.51	3.25	3.94	3.68	3.42	3.11	3.48	3.59	4.47	4.79
150	090593	2200	15	1.57	1.54	1.99	1.21	1.23	1.70	1.83	0.98	1.26	1.25	0.92	1.32	0.86	0.76	0.98	0.69	0.96	0.64	0.77	0.76	0.71	0.68	0.71	0.67	0.66
151	090793	2400	6	0.06	0.05	0.00	0.07	0.06	0.07	0.05	0.06	0.10	0.07	0.08	0.10	0.13	0.11	0.15	0.09	0.13	0.14	0.12	0.15	0.10	0.10	0.09	0.12	0.14
152	091293	0300	6	0.03	0.07	0.18	0.06	0.05	0.07	0.15	0.06	0.12	0.20	0.37	0.17	0.12	0.04	0.21	0.15	0.19	0.28	0.36	0.35	0.35	0.31	0.32	0.21	0.15
153	091393	0600	36	3.69	4.78	5.47	3.86	4.01	5.82	5.14	3.57	5.10	6.21	5.63	5.45	6.44	6.61	6.02	4.92	5.38	6.36	6.86	5.25	5.17	5.05	4.14	6.81	6.38
154	092293	0700	14	0.18	0.22	0.11	0.30	0.26	0.23	0.27	0.33	0.39	0.41	0.41	0.34	0.42	0.40	0.38	0.33	0.40	0.44	0.42	0.49	0.36	0.49	0.60	0.63	0.66
155	092593	0600	13	0.95	1.16	0.95	0.85	1.20	1.13	1.06	0.81	0.75	1.08	1.27	1.18	0.61	0.76	0.99	1.07	1.16	0.87	0.74	0.87	0.86	1.05	1.15	0.81	0.94
156	092693	1600	4	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.04	0.05	0.03	0.00	0.06	0.07	0.00	0.08
157	100893	1400	17	0.85	1.35	1.01	0.99	0.89	0.81	0.79	0.84	0.62	0.56	0.81	0.69	0.63	0.69	0.94	0.78	0.77	1.06	1.22	1.15	1.15	1.11	1.38	0.51	0.35
158	101593	1600	31	2.09	2.33	1.89	1.96	1.98	1.82	1.94	1.93	1.91	1.56	1.52	2.11	1.82	1.56	2.26	1.66	1.98	1.35	1.74	1.75	1.33	1.29	1.30	1.12	1.21
159	101893	1400	10	0.09	0.08	0.03	0.10	0.04	0.00	0.02	0.06	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.05	0.05	0.10	0.04	0.00	0.00	0.00
160	102093	0900	14	0.28	0.26	0.34	0.22	0.26	0.29	0.40	0.29	0.18	0.34	0.36	0.44	0.22	0.29	0.40	0.43	0.47	0.22	0.31	0.38	0.45	0.41	0.37	0.19	0.22
161	110293	1600	8	0.06	0.00	0.12	0.00	0.05	0.08	0.08	0.00	0.00	0.07	0.07	0.09	0.06	0.06	0.11	0.08	0.10	0.00	0.00	0.10	0.06	0.13	0.10	0.00.	0.05
162	111293	1400	8	0.45	0.49	0.37	0.42	0.36	0.44	0.23	0.41	0.42	0.40	0.30	0.28	0.36	0.32	0.34	0.21	0.25	0.32	0.33	0.24	0.25	0.32	0.42	0.41	0.37
163	111393	2000	20	0.51	0.61	0.59	0.66	0.57	0.59	0.65	0.61	0.73	0.60	0.70	0.83	0.77	0.69	0.74	0.84	0.93	0.71	0.89	0.75	0.89	0.89	0.93	0.91	0.86
164	111693	2000	16	0.47	0.52	0.69	0.54	0.51	0.63	0.68	0.67	0.69	0.72	0.58	0.70	0.70	0.83	0.67	0.63	0.73	0.77	0.91	0.77	0.80	0.89	0.74	0.91	0.69
165	112493	0100	11	0.16	0.15	0.11	0.17	0.10	0.09	0.10	0.13	0.10	0.10	0.08	0.16	0.11	0.08	0.09	0.08	0.11	0.11	0.13	0.05	0.06	0.09	0.08	0.12	0.09
166	112493	1700	45	0.58	0.71	0.59	0.52	0.61	0.64	0.55	0.55	0.48	0.55	0.55	0.42	0.60	0.52	0.43	0.66	0.70	0.66	0.61	0.57	0.62	0.58	0.63	0.74	0.68
167	112793	1000	4	0.05	0.00	0.02	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.08	0.05	0.04	0.01	0.06	0.10	0.00	0.03	0.00	0.00	0.06	0.07	0.04	0.00	0.00
168	112793	2000	11	0.07	0.06	0.09	0.09	0.08	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
169	120193	1900	15	0.34	0.39	0.25	0.28	0.23	0.19	0.28	0.23	0.27	0.26	0.28	0.26	0.24	0.28	0.23	0.25	0.34	0.23	0.33	0.28	0.22	0.33	0.48	0.27	0.32
170	120393	1300	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm	#	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
171	120393	2000	10	0.14	0.23	0.12	0.18	0.17	0.14	0.13	0.13	0.12	0.10	0.18	0.19	0.16	0.15	0.10	0.17	0.16	0.13	0.17	0.12	0.12	0.19	0.20	0.11	0.08
172	121393	0100	4	0.04	0.08	0.00	0.09	0.06	0.03	0.00	0.00	0.05	0.06	0.00	0.00	0.03	0.07	0.05	0.00	0.00	0.05	0.07	0.03	0.02	0.00	0.00	0.05	0.04
173	121393	0900	42	0.65	0.62	0.47	0.38	0.42	0.32	0.51	0.45	0.45	0.47	0.45	0.49	0.46	0.36	0.48	0.58	0.46	0.60	0.68	0.57	0.57	0.60	0.66	0.60	0.56
174	121793	2200	5	0.04	0.04	0.05	0.00	0.04	0.05	0.09	0.00	0.00	0.08	0.06	0.08	0.00	0.04	0.04	0.09	0.14	0.05	0.04	0.03	0.08	0.16	0.18	0.00	0.04
175	122493	1900	12	0.13	0.15	0.06	0.08	0.08	0.00	0.08	0.05	0.12	0.00	0.16	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.10	0.12	0.00
176	123093	2400	1	0.00	0.04	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177	123193	2200	3	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.04	0.06	0.04	0.00	0.00	0.02	0.05	0.00	0.00	0.04	0.00	0.00	0.06	0.00	0.00	0.00
178	010294	2200	11	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.13	0.10	0.06	0.00	0.00	0.10	0.18	0.10	0.09	0.00	0.00	0.23	0.18
179	01 1094	1000	12	**0.25**	**0.15**	**0.23**	**0.17**	**0.22**	**0.17**	**0.23**	**0.27**	**0.25**	**0.18**	**0.28**	**0.12**	**0.15**	**0.20**	**0.19**	**0.16**	**0.20**	**0.13**	**0.21**	**0.18**	**0.17**	**0.23**	**0.29**	**0.22**	**0.22**
180	011394	1100	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.07	0.00	0.03	0.00	0.07	0.02	0.11	0.00	0.06	0.00	0.00	0.00	0.00
181	01 1694	1200	6	**0.00**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.07**	**0.00**	**0.05**	**0.05**	**0.10**	**0.06**	**0.08**	**0.06**	**0.04**	**0.00**	**0.06**	**0.00**	**0.03**	**0.03**	**0.05**	**0.08**	**0.09**	**0.00**	**0.09**
182	012594	0600	8	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.10	0.07	0.07	0.06	0.11	0.08	0.19	0.10	0.05	0.04	0.06	0.00	0.00	0.05	0.05	0.00
183	012594	1900	1	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
184	012694	2300	23	0.46	0.39	0.68	0.20	0.45	0.55	0.67	0.17	0.41	0.56	0.66	0.77	0.39	0.38	0.58	0.72	0.76	0.33	0.56	0.55	0.57	0.69	0.59	0.53	0.57
185	012994	1500	20	0.10	0.08	0.00	0.00	0.08	0.12	0.27	0.00	0.09	0.00	0.00	0.17	0.06	0.07	0.04	0.00	0.21	0.00	0.00	0.00	0.12	0.06	0.08	0.06	0.00
186	020794	2000	21	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.01	0.00	0.10	0.10	0.00	0.22	0.07	0.10	0.05	0.04	0.08	0.14
187	021294	1100	5	0.05	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
188	021994	0400	30	0.80	0.97	0.97	0.69	0.84	0.91	0.67	0.67	0.85	0.85	0.92	0.65	0.80	0.88	0.77	0.68	0.64	0.67	0.70	0.75	0.62	0.74	0.55	0.79	0.63
189	022294	1500	33	0.39	0.33	0.65	0.49	0.53	0.34	0.41	0.41	0.61	0.56	0.31	0.53	0.62	0.74	0.57	0.38	0.53	0.55	0.72	0.69	0.42	0.39	0.29	0.57	0.94
190	022494	1700	23	0.32	0.28	0.20	0.26	0.30	0.33	0.29	0.28	0.33	0.35	0.32	0.15	0.27	0.23	0.24	0.19	0.22	0.23	0.18	0.21	0.19	0.35	0.44	0.12	0.18
191	022894	2000	7	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.04	0.06	0.00	0.05	0.07	0.08	0.07	0.06	0.05	0.06	0.09	0.08	0.07	0.10	0.09	0.18	0.20
192	030694	2300	9	0.17	0.21	0.22	0.27	0.24	0.34	0.41	0.27	0.36	0.47	0.40	0.36	0.37	0.32	0.35	0.31	0.29	0.40	0.36	0.33	0.29	0.33	0.24	0.38	0.44
193	031294	2400	6	0.05	0.06	0.07	0.05	0.04	0.05	0.04	0.00	0.03	0.04	0.05	0.05	0.00	0.06	0.03	0.14	0.05	0.06	0.12	0.08	0.00	0.06	0.05	0.06	0.07
194	031394	1500	3	0.04	0.00	0.05	0.00	0.04	0.06	0.05	0.00	0.00	0.03	0.00	0.02	0.00	0.03	0.04	0.00	0.00	0.05	0.00	0.00	0.06	0.03	0.00	0.00	0.04
195	032194	0100	3	0.04	0.04	0.08	0.05	0.03	0.04	0.03	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
196	032394	1900	4	0.00	0.08	0.08	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197	032694	0600	21	0.43	0.47	0.40	0.43	0.45	0.41	0.54	0.38	0.43	0.47	0.60	0.54	0.52	0.39	0.56	0.60	0.65	0.54	0.61	0.53	0.62	0.70	0.73	0.68	0.57
198	040294	1500	8	0.30	0.27	0.31	0.26	0.26	0.27	0.24	0.25	0.23	0.26	0.23	0.24	0.27	0.27	0.25	0.23	0.23	0.26	0.17	0.20	0.16	0.20	0.17	0.19	0.20
199	040594	1500	6	0.03	0.06	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.04	0.01	0.04	0.04	0.05	0.08	0.07	0.05	0.06	0.03	0.04	0.00	0.00	0.04	0.07	0.08
200	040994	1500	17	0.56	0.62	0.47	0.41	0.46	0.35	0.34	0.44	0.37	0.37	0.37	0.42	0.40	0.46	0.41	0.50	0.41	0.43	0.50	0.41	0.36	0.42	0.39	0.42	0.43
201	041094	2300	38	1.62	2.52	1.93	1.68	1.82	1.74	2.07	1.64	1.95	2.01	2.17	2.06	1.68	1.58	2.04	2.16	2.06	1.97	2.57	1.95	1.84	2.30	2.24	2.44	2.64
202	041294	2300	9	0.12	0.07	0.04	0.07	0.03	0.06	0.00	0.03	0.04	0.05	0.00	0.06	0.00	0.06	0.03	0.04	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.03
203	041594	0300	8	0.50	0.36	0.36	0.32	0.32	0.32	0.46	0.34	0.33	0.31	0.35	0.51	0.35	0.36	0.38	0.42	0.39	0.32	0.29	0.48	0.48	0.59	0.42	0.34	0.37
204	042094	1900	17	0.12	0.09	0.17	0.13	0.12	0.12	0.15	0.18	0.20	0.23	0.14	0.16	0.35	0.31	0.28	0.22	0.20	0.80	0.75	0.53	0.45	0.35	0.26	1.07	1.12
205	042594	1800	6	0.21	0.19	0.12	0.14	0.14	0.07	0.06	0.06	0.11	0.09	0.08	0.09	0.10	0.08	0.07	0.03	0.02	0.12	0.05	0.03	0.01	0.00	0.03	0.21	0.05
206	042694	0400	4	0.04	0.02	0.01	0.05	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
207	042694	1800	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13	0.11	0.00	0.00	0.00	0.20	0.35	0.11	0.00	0.00
208	042794	1700	22	0.58	0.81	0.61	0.66	0.67	0.53	0.65	0.73	0.68	0.68	0.70	0.82	0.64	0.61	0.70	0.83	0.81	0.64	0.87	0.74	0.77	0.66	0.66	0.74	0.75
209	042994	1700	22	0.64	0.84	0.66	0.74	0.65	0.66	0.68	0.71	0.71	0.69	0.67	0.82	0.68	0.67	0.65	0.66	0.74	0.67	0.92	0.79	0.75	0.70	0.68	0.75	0.75
210	050594	1700	43	0.91	1.10	1.06	1.07	0.86	0.97	1.00	1.27	1.45	1.63	1.67	1.70	1.46	1.34	1.63	1.57	1.67	1.17	1.56	1.15	1.10	1.06	1.30	1.43	1.50
211	050994	1900	4	0.00	0.00	0.05	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
212	051194	1500	5	0.19	0.27	0.21	0.07	0.16	0.07	0.08	0.30	0.21	0.16	0.20	0.30	0.33	0.19	0.57	0.36	0.15	0.32	0.41	0.52	0.27	0.23	0.42	0.25	0.15

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm #	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
213	051494	0400	17	0.36	0.80	0.45	0.41	0.46	0.38	0.50	0.42	0.40	0.50	0.47	0.39	0.35	0.27	0.45	0.38	0.46	0.31	0.55	0.32	0.33	0.43	0.45	0.35	0.40
214	052494	1500	12	0.90	1.08	1.08	1.57	1.53	1.63	1.21	0.87	0.60	0.81	0.69	1.33	0.95	0.66	0.43	0.40	1.11	0.56	0.79	0.72	0.47	0.46	0.51	2.83	1.87
215	052594	1800	7	0.03	0.06	0.11	0.07	0.09	0.06	0.11	0.03	0.06	0.09	0.15	0.16	0.10	0.11	0.14	0.15	0.17	0.10	0.13	0.08	0.12	0.15	0.14	0.07	0.06
216	05 3194	1400	7	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.10	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
217	060194	1700	21	0.64	0.59	0.53	0.72	0.75	0.61	0.61	0.84	0.57	0.74	0.74	0.58	1.13	0.79	0.79	0.66	0.67	0.88	0.97	0.81	0.77	0.82	0.57	1.06	1.01
218	060594	1100	7	0.05	0.00	0.06	0.06	0.06	0.02	0.02	0.24	0.15	0.47	0.11	0.03	0.12	0.15	0.26	0.10	0.16	0.19	0.26	0.27	0.28	0.32	0.25	0.11	0.21
219	060594	2400	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00
220	060794	1900	21	0.18	0.20	0.09	0.22	0.19	0.18	0.17	0.24	0.38	0.55	0.41	0.47	1.05	1.17	1.04	0.93	0.68	1.21	1.62	1.50	1.03	1.05	0.99	0.79	0.96
221	061194	2400	3	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.06	0.17	0.16	0.16	0.15	0.03	0.17	0.06	0.10	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	061294	1100	8	0.08	0.09	0.39	0.18	0.15	0.31	0.28	0.23	0.42	0.70	0.36	0.70	0.43	1.16	0.76	0.74	0.47	0.17	0.44	0.80	0.88	0.49	0.44	0.60	0.41
223	061494	1600	3	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
224	061694	1600	5	0.09	0.00	0.00	0.13	0.24	0.00	0.00	0.00	0.71	0.24	0.00	0.00	0.31	1.08	0.07	0.00	0.06	0.16	0.34	0.96	0.07	0.05	0.20	0.58	0.46
225	062094	1500	7	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.13	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.04	0.00
226	062394	0500	5	0.23	0.21	0.06	0.13	0.30	0.05	0.10	0.15	0.21	0.09	0.12	0.00	0.00	0.03	0.13	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
227	062394	1300	20	0.23	0.32	0.29	0.33	0.30	0.19	0.23	0.16	0.25	0.24	0.13	0.25	0.12	0.24	0.24	0.28	0.35	0.26	0.32	0.23	0.29	0.32	0.30	0.37	0.21
228	062594	1900	6	0.00	0.00	0.04	0.09	0.08	0.06	0.04	0.07	0.05	0.05	0.05	0.04	0.22	0.29	0.52	0.11	0.09	0.10	0.11	0.10	0.00	0.00	0.12	0.12	0.13
229	062694	0500	17	0.29	0.18	0.58	0.09	0.31	0.67	0.50	0.16	0.24	0.64	0.41	0.29	0.22	0.18	0.36	0.50	0.26	0.66	0.41	0.31	0.62	0.89	0.47	0.09	0.07
230	070294	1100	11	0.58	0.65	0.39	0.76	0.59	0.54	0.71	0.72	0.66	1.14	0.86	0.95	1.02	1.57	1.06	1.09	0.77	1.76	1.99	1.38	0.89	0.79	1.32	1.66	1.70
231	070494	0500	6	0.18	0.29	0.28	0.27	0.34	0.45	0.06	0.20	0.64	0.40	0.30	0.16	0.16	0.23	0.02	0.11	0.09	0.15	0.24	0.11	0.10	0.05	0.00	0.22	0.18
232	070794	1500	7	0.06	0.26	0.23	0.00	0.00	0.32	0.00	0.27	0.16	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.32	0.34	0.07	0.00	0.00	0.06	0.00
233	071694	1700	8	0.24	0.25	0.77	0.09	0.05	0.45	0.57	0.27	0.30	0.30	0.26	0.54	1.29	0.63	0.28	0.17	0.29	1.69	2.62	0.49	0.38	0.22	0.27	0.89	2.02
234	071994	0400	7	1.85	1.61	0.61	1.36	2.02	2.21	1.15	0.00	0.04	2.06	2.58	2.19	0.14	0.11	0.28	1.59	2.78	0.05	0.09	0.08	0.05	0.57	1.86	0.03	0.04
235	072094	0400	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
236	072094	1500	10	0.32	0.34	0.32	0.32	0.38	0.46	0.85	0.32	0.44	0.48	0.28	0.37	0.80	0.55	0.61	0.52	0.36	0.58	0.48	0.56	0.56	0.38	0.31	0.66	0.28
237	072194	2200	2	0.00	0.00	0.00	0.00	0.04	0.00	0.09	0.08	0.06	0.08	0.09	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
238	072494	1500	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
239	080194	1300	11	0.37	0.28	0.00	0.24	0.09	0.18	0.00	0.00	0.00	0.45	0.04	0.00	0.00	0.06	0.04	0.00	0.00	0.02	0.13	0.20	0.20	0.14	0.00	0.77	0.04
240	080394	1500	19	0.58	0.59	0.67	0.60	0.70	0.69	0.69	0.87	1.02	0.86	1.02	0.83	1.54	1.33	0.80	0.77	0.95	1.75	1.27	0.73	0.69	0.82	0.33	1.32	1.27
241	080494	1500	7	0.13	0.08	0.49	0.28	0.25	0.15	0.24	0.08	0.22	0.38	0.22	0.10	0.16	0.13	0.15	0.22	0.12	0.15	0.25	0.08	0.08	0.10	0.13	0.05	0.00
242	081394	1500	4	0.00	0.00	0.77	0.19	0.59	0.77	0.66	0.00	0.06	0.20	0.43	0.42	0.43	0.33	0.48	0.24	0.25	0.79	0.75	0.60	0.51	0.51	0.41	0.24	0.35
243	081694	1600	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
244	081994	2100	9	0.05	0.07	0.06	0.22	0.23	0.13	0.23	0.00	0.00	0.12	0.06	0.08	0.14	0.16	0.11	0.10	0.03	0.27	0.22	0.25	0.20	0.30	0.33	0.24	0.12
245	082694	0800	5	0.50	0.17	0.32	0.68	0.46	0.35	0.35	0.07	0.08	0.36	0.27	0.79	0.05	0.04	0.32	1.01	0.66	0.76	0.79	0.72	0.39	0.79	0.81	0.21	0.24
246	082894	1200	7	0.13	0.16	0.22	0.30	0.20	0.20	0.17	0.21	0.22	0.28	0.24	0.22	0.12	0.13	0.14	0.18	0.27	0.10	0.10	0.12	0.06	0.12	0.21	0.17	0.19
247	082994	1800	3	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
248	082994	2400	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
249	083094	0600	8	1.07	1.29	0.94	1.08	1.10	1.16	1.08	1.09	1.24	1.23	1.27	1.12	1.30	1.28	1.21	1.27	1.11	1.31	1.53	1.38	1.24	1.24	1.14	1.73	1.83
250	083094	2300	2	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.13	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
251	090494	1200	14	0.22	0.28	0.23	0.23	0.34	0.25	0.20	0.23	0.28	0.30	0.26	0.20	0.56	0.26	0.50	0.35	0.37	0.24	0.36	0.40	0.47	0.42	0.45	0.12	0.13
252	092194	2100	11	0.28	0.34	0.24	0.25	0.33	0.31	0.27	0.24	0.28	0.34	0.28	0.29	0.27	0.21	0.26	0.26	0.14	0.25	0.16	0.20	0.28	0.28	0.25	0.30	0.18
253	092294	1200	17	0.47	0.74	0.86	0.45	0.40	0.74	0.84	0.35	0.47	0.62	0.65	0.82	0.44	0.48	0.61	0.58	0.79	0.31	0.39	0.47	0.59	0.65	0.72	0.21	0.26
254	092594	0500	7	0.07	0.05	0.00	0.08	0.02	0.05	0.00	0.00	0.04	0.00	0.05	0.00	0.11	0.06	0.13	0.04	0.00	0.17	0.15	0.12	0.06	0.00	0.00	0.17	0.18
255	092594	1500	7	0.00	0.00	0.26	0.00	0.00	0.09	1.01	0.12	0.14	0.03	0.37	0.89	0.16	0.06	0.00	0.56	0.30	0.00	0.07	0.00	0.00	0.77	0.07	0.00	0.00

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm #	Dale	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
256	092694	0300	7	0.36	0.31	0.08	0.16	0.22	0.27	0.27	0.04	0.00	0.08	0.13	0.31	0.00	0.04	0.00	0.14	0.18	0.06	0.06	0.00	0.00	0.00	0.00	0.07	0.07
257	100694	0300	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
258	100794	0800	34	1.51	1.59	1.13	1.73	1.51	1.53	1.36	1.57	1.80	1.80	1.45	1.29	2.14	2.12	2.01	1.32	1.21	2.33	2.48	2.01	1.42	1.38	1.35	2.55	2.23
259	101894	1300	10	0.09	0.09	0.11	0.11	0.10	0.10	0.11	0.16	0.06	0.18	0.15	0.13	0.10	0.09	0.15	0.16	0.16	0.11	0.11	0.11	0.14	0.20	0.07	0.13	0.09
260	102294	1900	2	0.13	0.07	0.19	0.06	0.11	0.08	0.13	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.04	0.18	0.21	0.05	0.00	0.00	0.00
261	102494	0600	5	0.00	0.00	0.00	0.06	0.00	0.05	0.06	0.00	0.00	0.06	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.06	0.00	0.09	0.13
262	102594	2300	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.06	0.00	0.00	0.00	0.02
263	103094	2400	22	1.28	1.77	1.43	1.71	1.48	1.31	1.21	1.36	1.57	1.44	1.33	1.41	1.45	1.41	1.51	1.15	1.40	1.44	1.80	1.31	1.36	1.24	1.12	1.30	1.38
264	110394	1500	3	0.20	0.21	0.31	0.10	0.08	0.10	0.12	0.03	0.06	0.16	0.22	0.45	0.08	0.19	0.18	0.24	0.46	0.09	0.21	0.15	0.17	0.38	0.56	0.11	0.31
265	110494	0200	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.08	0.00	0.00
266	110494	0800	6	0.45	0.21	0.25	0.28	0.19	0.20	0.21	0.26	0.31	0.16	0.23	0.20	0.23	0.20	0.33	0.31	0.27	0.24	0.31	0.36	0.32	0.25	0.17	0.25	0.26
267	110494	2000	27	1.01	1.27	0.83	1.33	1.01	0.81	0.78	1.21	1.02	0.82	0.71	0.70	1.15	0.73	0.82	0.77	0.70	1.89	1.25	0.88	0.85	0.78	0.63	1.68	1.94
268	110994	0100	16	0.12	0.18	0.12	0.19	0.15	0.11	0.11	0.23	0.21	0.22	0.18	0.26	0.27	0.22	0.26	0.41	0.44	0.17	0.35	0.35	0.53	0.60	0.63	0.29	0.38
269	111394	2000	7	0.10	0.13	0.21	0.12	0.08	0.14	0.24	0.11	0.06	0.12	0.17	0.21	0.05	0.06	0.10	0.18	0.18	0.06	0.09	0.09	0.16	0.18	0.15	0.06	0.04
270	112094	0300	8	0.21	0.22	0.15	0.19	0.20	0.19	0.16	0.20	0.16	0.20	0.17	0.13	0.17	0.09	0.18	0.18	0.15	0.22	0.25	0.19	0.17	0.16	0.14	0.20	0.24
271	112094	1900	10	0.62	0.59	0.39	0.61	0.48	0.42	0.48	0.53	0.52	0.51	0.44	0.49	0.52	0.55	0.52	0.51	0.53	0.57	0.61	0.51	0.56	0.66	0.46	0.66	0.61
272	112794	0300	11	1.00	1.08	0.79	0.84	1.06	0.75	0.84	0.78	0.96	0.79	0.82	0.69	0.86	0.60	0.67	0.72	0.66	0.63	0.71	0.62	0.62	0.58	0.58	0.56	0.77
273	113094	0900	2	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
274	120294	1900	8	0.06	0.08	0.16	0.07	0.04	0.10	0.10	0.04	0.01	0.11	0.06	0.05	0.04	0.09	0.04	0.07	0.02	0.03	0.05	0.06	0.07	0.04	0.00	0.05	0.04
275	120394	0700	4	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.03	0.04	0.04	0.01	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03	0.04
276	120694	0400	26	1.71	1.97	1.90	1.83	1.92	1.79	1.84	1.68	1.80	1.88	1.76	1.87	1.75	1.83	1.66	1.68	1.51	1.69	1.84	1.57	1.37	1.39	1.46	1.49	1.41
277	120894	1700	12	0.21	0.29	0.26	0.22	0.23	0.22	0.24	0.17	0.25	0.23	0.21	0.17	0.24	0.23	0.21	0.19	0.17	0.29	0.21	0.17	0.19	0.16	0.15	0.21	0.20
278	121694	0100	12	0.34	0.35	0.21	0.26	0.26	0.31	0.26	0.20	0.20	0.27	0.21	0.26	0.22	0.17	0.24	0.27	0.29	0.31	0.29	0.28	0.29	0.29	0.37	0.24	0.29
279	122094	0300	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.10	0.00	0.00	0.00	0.04	0.09	0.06	0.00	0.00
280	122094	1300	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.08	0.04	0.03	0.00	0.00	0.00	0.03	0.07
281	123194	2300	2	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.06	0.00	0.02	0.00	0.00	0.00	0.05	0.05	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00
282	010695	0100	17	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.04	0.00	0.16	0.00	0.05	0.05	0.10	0.15	0.13	0.03	0.11	0.03	0.13	0.10	0.10	0.11	0.06
283	01 1395	0400	30	1.10	2.06	1.55	1.52	1.48	1.37	1.52	1.51	1.56	1.46	1.19	1.86	1.57	1.74	1.65	1.53	1.88	1.60	2.18	1.62	1.68	1.56	1.63	1.73	1.65
284	01 1795	0500	3	0.00	0.04	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.03	0.00	0.00	0.00
285	01 1895	2000	26	0.34	0.80	0.73	0.97	0.63	0.79	0.92	0.77	0.94	0.77	0.75	0.82	0.87	0.89	1.03	0.92	0.94	0.68	1.03	0.84	0.85	0.66	0.90	0.73	0.79
286	012795	0400	27	0.33	0.42	0.27	0.37	0.37	0.30	0.33	0.29	0.28	0.43	0.33	0.34	0.48	0.27	0.52	0.37	0.35	0.55	0.76	0.55	0.48	0.47	0.47	0.42	0.50
287	020395	0200	14	0.12	0.12	0.07	0.15	0.15	0.13	0.19	0.19	0.21	0.20	0.15	0.18	0.23	0.24	0.21	0.17	0.21	0.19	0.25	0.27	0.17	0.19	0.12	0.33	0.41
288	021495	1400	5	0.03	0.04	0.03	0.00	0.03	0.04	0.00	0.03	0.05	0.05	0.05	0.00	0.06	0.00	0.04	0.04	0.04	0.03	0.04	0.03	0.00	0.06	0.06	0.04	0.03
289	022695	1600	15	0.38	0.48	0.35	0.36	0.34	0.29	0.41	0.33	0.37	0.37	0.41	0.48	0.38	0.37	0.41	0.33	0.32	0.41	0.51	0.45	0.34	0.34	0.29	0.37	0.45
290	030495	2200	10	0.44	0.53	0.48	0.38	0.42	0.45	0.46	0.44	0.43	0.47	0.49	0.45	0.47	0.31	0.48	0.44	0.43	0.54	0.56	0.46	0.44	0.47	0.49	0.44	0.41
291	030695	2000	17	0.56	0.85	0.79	0.57	0.67	0.73	0.79	0.66	0.78	0.77	0.88	1.06	0.75	0.90	0.83	1.13	1.19	0.74	1.09	0.78	1.22	1.13	1.09	0.75	0.70
292	032095	0300	6	0.25	0.24	0.17	0.27	0.21	0.20	0.26	0.21	0.21	0.16	0.24	0.23	0.24	0.08	0.23	0.23	0.23	0.15	0.18	0.17	0.40	0.23	0.29	0.26	0.23
293	032295	1800	2	0.02	0.00	0.05	0.00	0.00	0.10	0.06	0.02	0.00	0.06	0.07	0.09	0.05	0.03	0.04	0.05	0.09	0.03	0.00	0.06	0.03	0.00	0.00	0.00	0.00
294	032695	0400	4	0.09	0.08	0.07	0.04	0.07	0.05	0.06	0.02	0.02	0.07	0.07	0.08	0.06	0.03	0.04	0.06	0.05	0.04	0.07	0.06	0.06	0.04	0.05	0.06	0.06
295	032695	2100	10	0.31	0.39	0.25	0.24	0.33	0.33	0.35	0.28	0.26	0.24	0.31	0.34	0.22	0.17	0.23	0.34	0.27	0.35	0.42	0.37	0.34	0.33	0.31	0.34	0.39
296	040395	0900	6	0.13	0.17	0.21	0.17	0.23	0.29	0.36	0.19	0.28	0.38	0.39	0.43	0.33	0.31	0.37	0.29	0.26	0.28	0.29	0.29	0.25	0.17	0.20	0.24	0.21
297	040695	1200	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.13

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Continued)

Strm #	Date	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
298	040695	1800	8	0.00	0.00	0.00	0.05	0.03	0.00	0.03	0.00	0.02	0.02	0.03	0.05	0.00	0.03	0.00	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.04
299	040795	2100	11	0.98	1.05	1.09	0.91	0.99	1.34	1.09	1.13	1.15	0.98	0.94	0.94	0.92	0.85	0.78	0.65	0.83	0.53	0.75	0.72	0.74	0.47	0.42	0.50	0.65
300	040995	0100	7	0.55	0.76	0.55	0.78	0.65	0.59	0.65	0.79	0.63	0.63	0.81	0.82	0.68	0.71	0.84	0.67	0.64	0.78	0.75	0.61	0.42	0.31	0.30	0.54	0.48
301	040995	2300	9	0.63	0.60	0.57	0.63	0.40	0.53	0.42	0.31	0.44	0.44	0.33	0.46	0.57	0.42	0.39	0.33	0.28	0.27	0.24	0.09	0.10	0.11	0.05	0.06	0.10
302	041095	1300	2	0.12	0.08	0.05	0.11	0.04	0.05	0.02	0.16	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.11	0.00
303	041095	2000	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03
304	041195	1000	11	0.50	0.44	0.28	0.38	0.48	0.39	0.24	0.29	0.43	0.45	0.39	0.25	0.34	0.40	0.46	0.41	0.32	0.40	0.44	0.38	0.42	0.41	0.36	0.38	0.42
305	041595	1400	3	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.05	0.00	0.05	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
306	041695	2100	4	0.12	0.18	0.10	0.52	0.57	0.37	0.29	0.46	0.39	0.43	0.40	0.42	0.32	0.13	0.13	0.35	0.34	0.39	0.39	0.23	0.43	0.26	0.37	0.22	0.30
307	041795	2000	11	0.81	0.95	0.92	0.69	0.75	0.85	0.95	0.64	0.55	0.74	0.88	0.91	0.54	0.43	0.68	0.84	0.93	0.56	0.69	0.68	0.77	0.63	0.88	0.54	0.62
308	042095	0200	7	0.32	0.32	0.30	0.32	0.32	0.33	0.30	0.26	0.31	0.30	0.30	0.32	0.37	0.14	0.27	0.31	0.36	0.35	0.31	0.25	0.30	0.37	0.39	0.32	0.29
309	042095	2200	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.13	0.09
310	042395	1700	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
311	042495	1400	5	0.05	0.05	0.05	0.00	0.06	0.05	0.12	0.07	0.00	0.06	0.05	0.08	0.12	0.09	0.07	0.05	0.03	0.05	0.05	0.04	0.04	0.05	0.05	0.05	0.06
312	042695	0600	9	0.17	0.20	0.13	0.16	0.18	0.15	0.11	0.18	0.19	0.13	0.09	0.10	0.07	0.13	0.08	0.08	0.02	0.10	0.10	0.09	0.06	0.04	0.04	0.12	0.09
313	042695	2200	8	0.54	0.46	0.61	0.54	0.49	0.53	0.50	0.46	0.48	0.47	0.51	0.64	0.57	0.55	0.65	0.66	0.74	0.58	0.56	0.64	0.70	0.79	0.52	0.60	0.55
314	042995	1200	11	0.16	0.21	0.20	0.19	0.15	0.14	0.13	0.16	0.13	0.12	0.11	0.16	0.16	0.13	0.17	0.16	0.15	0.16	0.24	0.23	0.22	0.25	0.22	0.18	0.16
315	050395	1500	18	0.09	0.04	0.00	0.08	0.03	0.07	0.06	0.12	0.04	0.04	0.08	0.05	0.08	0.08	0.04	0.10	0.05	0.04	0.04	0.09	0.10	0.18	0.08	0.13	0.11
316	050795	1900	17	1.69	1.70	1.27	1.76	1.43	1.14	1.21	1.74	1.36	1.29	1.15	1.15	1.41	0.67	1.24	1.06	1.23	1.07	1.02	0.82	1.00	1.04	1.22	0.92	0.89
317	050895	1600	14	1.18	1.03	0.39	0.46	1.11	0.47	0.61	0.55	0.63	0.75	0.41	0.62	0.63	0.83	0.66	0.30	0.36	0.77	0.35	0.60	0.16	0.94	0.29	0.21	0.51
318	050995	1600	4	0.32	0.24	0.47	0.19	0.06	0.13	0.12	0.31	0.08	0.03	0.00	0.00	0.06	0.04	0.00	0.00	0.03	0.00	0.10	0.00	0.00	0.00	0.06	0.00	0.06
319	051095	0200	12	0.17	0.04	0.25	0.09	0.12	0.10	0.14	0.04	0.07	0.09	0.04	0.18	0.00	0.04	0.04	0.34	0.45	0.02	0.03	0.00	0.14	0.34	0.27	0.00	0.00
320	051295	2000	12	0.39	0.41	0.43	0.36	0.43	0.37	0.50	0.43	0.39	0.46	0.47	0.47	0.42	0.25	0.44	0.46	0.37	0.41	0.46	0.45	0.40	0.36	0.34	0.29	0.35
321	051395	1800	1	0.06	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
322	051695	0500	7	0.04	0.04	0.08	0.05	0.05	0.05	0.13	0.03	0.00	0.03	0.00	0.06	0.02	0.02	0.06	0.06	0.11	0.12	0.10	0.18	0.04	0.09	0.11	0.12	0.39
323	051695	1500	12	0.90	0.86	0.85	1.07	1.05	1.05	1.10	1.78	2.12	1.93	1.58	1.56	3.07	3.25	3.04	2.40	2.46	3.65	4.22	3.26	3.28	3.60	3.13	3.59	2.94
324	051795	0800	21	0.67	0.84	0.75	0.85	0.79	0.77	0.84	0.98	1.03	0.93	0.81	0.89	0.91	0.81	0.83	0.87	0.77	0.93	1.00	0.88	0.87	0.98	0.89	1.02	0.98
325	051895	1000	9	0.49	0.41	0.47	0.53	0.44	0.52	0.44	0.56	0.67	0.81	0.54	0.64	1.15	1.09	0.76	0.69	1.34	1.85	1.04	0.66	0.79	0.60	0.68	0.97	0.57
326	052395	1000	6	0.28	0.28	0.28	0.25	0.41	0.36	0.25	0.16	0.46	0.20	0.20	0.09	0.41	0.24	0.18	0.08	0.14	0.22	0.22	0.13	0.15	0.11	0.11	0.29	0.19
327	052395	1900	24	2.72	2.76	2.32	2.64	2.83	2.23	2.23	2.49	2.41	2.53	2.66	2.85	2.70	3.40	3.08	2.77	2.62	3.22	3.78	3.24	2.79	2.42	2.35	3.33	3.00
328	052695	2200	8	0.09	0.09	0.03	0.06	0.07	0.05	0.04	0.06	0.09	0.06	0.07	0.05	0.10	0.07	0.09	0.04	0.06	0.13	0.13	0.13	0.07	0.09	0.09	0.08	0.12
329	052795	1000	15	0.86	1.02	0.80	0.77	0.71	0.78	0.71	0.75	0.74	0.84	0.76	0.89	0.73	0.39	0.63	0.61	0.72	0.74	0.45	0.49	0.61	1.13	1.12	0.60	0.45
330	052895	0700	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
331	060295	0800	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.08	0.00	0.04	0.03	0.00	0.00	0.09	0.04	0.09	0.09	0.07	0.07	0.04	0.00	0.07
332	060895	0700	5	0.32	0.33	0.24	0.54	0.31	0.39	0.34	0.27	0.26	0.23	0.30	0.27	0.25	0.36	0.70	0.67	0.47	0.53	0.44	0.28	0.43	0.26	0.27	0.39	0.35
333	060995	0900	5	0.06	0.06	0.08	0.08	0.10	0.00	0.15	0.00	0.10	0.10	0.09	0.10	0.14	0.12	0.13	0.26	0.12	0.11	0.17	0.18	0.00	0.14	0.15	0.12	0.17
334	060995	2300	4	0.03	0.15	0.28	0.05	0.00	0.25	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
335	061195	1300	4	0.04	0.03	0.00	0.03	0.03	0.00	0.04	0.00	0.04	0.04	0.03	0.04	0.03	0.03	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.02	0.00	0.03	0.00
336	062095	1800	11	0.45	0.12	0.54	0.29	0.09	0.21	0.79	0.12	0.43	0.26	0.28	0.47	0.27	0.18	0.33	1.11	0.83	0.04	0.06	0.15	0.43	0.40	0.82	0.11	0.07
337	062195	1900	6	0.06	0.06	0.21	0.11	0.10	0.10	0.27	0.18	0.31	0.54	0.44	0.71	0.91	0.52	0.96	0.61	0.37	1.29	2.67	0.51	0.66	0.57	0.48	0.61	0.48
338	062395	1400	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.02	0.09	0.00	0.03	0.00	0.00	0.03	0.14	0.00	0.00
339	062495	0100	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.23	0.86	0.26	0.59	0.00	0.04	0.13	0.33	1.23	2.52	0.00	0.00	0.00
340	062495	1600	5	0.05	1.91	0.09	0.02	0.69	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04

*Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.

Table V-2. (Concluded)

Strm #	Dale	Hour	Duration*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
341	062595	1400	6	0.00	0.04	0.00	0.15	0.03	0.04	0.05	0.00	0.00	0.05	0.00	0.07	0.00	0.04	0.13	0.06	0.35	0.00	0.00	0.06	0.20	0.03	0.00	0.03	0.05
342	062695	0200	16	0.90	0.48	0.23	0.00	0.22	0.25	0.09	0.10	0.05	0.07	0.17	0.16	0.27	0.16	0.02	0.12	0.09	0.44	0.47	0.45	0.05	0.03	0.08	0.48	0.33
343	062795	1100	11	0.03	0.03	0.00	0.15	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.17	0.09	0.02	0.00	0.02	0.42	0.04	0.00	0.05	0.02	0.05	0.13
344	062895	1400	7	0.20	0.89	0.09	0.00	0.46	0.29	0.22	0.10	0.00	0.13	0.45	0.36	0.09	0.48	0.03	0.63	1.10	0.13	0.07	0.35	0.41	0.46	0.39	0.14	0.08
345	062995	1100	11	0.09	0.04	0.03	0.06	0.02	0.04	0.04	0.09	0.11	0.05	0.02	0.08	0.10	0.04	0.04	0.00	0.04	0.34	0.21	0.06	0.02	0.27	0.04	0.42	0.22
346	070495	0300	14	1.09	0.93	0.52	0.74	0.70	0.37	0.35	0.38	0.45	0.25	0.00	0.24	0.11	0.30	0.00	0.22	0.29	0.27	0.16	0.10	0.07	0.13	0.29	0.48	0.17
347	070495	2300	5	0.12	0.08	0.18	0.35	0.06	0.13	0.28	0.27	0.13	0.08	0.00	0.25	0.03	0.10	0.00	0.00	0.09	0.03	0.00	0.03	0.04	0.10	0.00	0.00	0.00
348	070595	2100	4	0.37	0.27	0.11	0.15	0.04	0.03	0.04	0.08	0.03	0.05	0.05	0.10	0.00	0.06	0.00	0.00	0.00	0.06	0.02	0.00	0.00	0.03	0.12	0.04	0.00
349	070995	1300	5	0.11	0.00	0.00	0.00	0.07	0.00	0.03	0.00	0.04	0.03	0.05	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00
350	07 1695	1400	5	0.06	0.03	0.04	0.20	0.23	0.10	0.05	0.00	0.10	0.16	0.46	0.94	0.32	0.24	0.05	0.68	0.31	0.10	0.28	0.40	0.26	0.12	0.14	0.61	0.50
351	071895	2000	5	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
352	072095	0700	10	0.12	0.14	0.11	0.20	0.25	0.31	0.41	0.45	0.34	0.27	0.22	0.14	0.27	0.25	0.00	0.00	0.15	0.22	0.18	0.18	0.21	0.21	0.25	0.23	0.18
353	072095	2000	4	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
354	072295	0800	6	0.49	0.47	0.64	0.65	0.55	0.36	0.36	0.24	0.24	0.46	0.83	0.85	0.10	0.07	0.19	0.57	0.84	0.12	0.37	0.34	0.74	0.42	0.51	0.39	0.26
355	072395	0600	6	0.62	0.31	0.10	0.32	0.55	0.09	0.10	0.53	0.46	0.49	0.42	0.49	0.77	0.37	0.38	0.44	0.28	1.10	0.82	0.30	0.33	0.60	0.45	0.85	0.23
356	072395	2100	4	0.05	0.03	0.02	0.04	0.01	0.06	0.00	0.21	0.04	0.05	0.04	0.04	0.25	0.08	0.03	0.00	0.03	0.68	0.75	0.39	0.20	0.26	0.06	0.00	0.00
357	072495	1600	5	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.10	0.68	0.02	0.03	0.20	0.18	0.23	0.08	0.10	0.30	0.39	0.23	0.32	0.61	0.00	0.00	0.84	0.36
358	072595	1300	15	0.42	0.29	0.14	0.00	0.16	0.19	0.42	0.00	0.20	0.04	0.16	0.00	0.29	0.08	0.05	0.02	0.27	0.16	0.26	0.41	0.21	0.23	0.55	0.56	0.25
359	072695	1700	4	0.00	0.44	0.08	0.15	0.00	0.20	0.26	0.00	0.32	0.25	0.00	0.50	0.17	0.24	0.00	0.44	0.24	0.28	0.13	0.74	0.03	0.00	0.05	0.00	0.12
360	072795	2000	5	0.05	0.03	0.00	0.00	0.02	0.00	0.00	0.15	0.10	0.03	0.00	0.00	0.16	0.21	0.00	0.02	0.00	0.16	0.04	0.06	0.04	0.01	0.00	0.09	0.09
361	073195	2000	8	0.00	0.03	0.65	0.00	0.12	0.18	0.24	0.25	0.01	0.22	0.14	0.06	0.22	0.34	0.11	0.16	0.11	0.00	0.14	0.49	0.22	0.16	0.21	0.04	0.20
362	080195	1500	5	0.00	0.14	0.03	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.04	0.00	0.00	0.00	0.04	0.04	0.00	0.08	0.03	0.04	0.00	0.55	0.26	0.28	0.14
363	080295	0200	17	0.67	0.55	0.48	0.55	0.67	0.36	0.45	0.33	0.60	0.47	0.58	0.44	0.62	0.89	0.71	0.85	0.43	0.70	0.98	0.88	0.85	0.77	0.54	0.74	0.94
364	080395	0100	11	0.33	0.47	0.46	0.33	0.41	0.32	0.25	0.32	0.14	0.13	0.04	0.18	0.11	0.01	0.17	0.20	0.41	0.00	0.05	0.06	0.28	0.15	0.57	0.00	0.05
365	080395	2300	15	0.09	0.09	0.00	0.13	0.07	0.00	0.13	0.12	0.08	0.09	0.17	0.17	0.13	0.16	0.14	0.26	0.19	0.21	0.30	0.16	0.34	1.29	1.12	1.10	0.52
366	080495	2100	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
367	080595	0200	5	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.00	0.03	0.12	0.00	0.00	0.00	0.06	0.00	0.00	0.04	0.03	0.00	0.09	0.00	0.00	0.00	0.09
368	080695	1800	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
369	080695	2300	3	0.01	0.17	0.00	0.00	0.00	0.11	0.09	0.00	0.00	0.00	0.04	0.29	0.00	0.15	0.03	0.00	0.08	0.00	0.00	0.20	0.02	0.06	0.04	0.00	0.00
370	080895	0400	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.03	0.23	0.00	0.00	0.00	0.00	0.00	0.00
371	080895	1200	6	0.34	0.21	0.29	0.32	0.22	0.29	1.15	0.33	0.32	0.17	0.21	0.46	0.76	0.91	0.41	0.17	0.40	0.88	0.80	0.73	0.53	0.40	0.39	0.21	0.31
372	080995	1900	12	0.06	0.24	0.22	0.30	0.48	0.42	0.24	0.22	0.60	0.40	0.13	2.26	0.53	0.80	0.48	0.96	1.80	0.29	0.78	0.59	0.24	0.43	0.87	0.04	0.37
373	08 1395	1900	3	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
374	081495	1100	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
375	081595	1600	8	0.68	0.13	0.38	0.49	0.28	0.04	0.49	0.47	0.22	0.06	0.05	0.27	0.00	0.10	0.00	0.00	0.03	0.11	0.15	0.04	0.15	0.00	0.00	0.09	0.12
376	081695	1100	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
377	081695	1500	7	0.00	0.00	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.03	0.10	0.00	0.00	0.00	0.05	0.02	0.00	0.00	0.14	0.09	0.04	0.17	0.16
378	081795	0100	7	0.04	0.17	0.21	0.15	0.24	0.22	0.21	0.41	0.23	0.42	0.25	0.18	0.04	0.21	0.29	0.37	0.48	0.16	0.21	0.25	0.29	0.49	0.51	0.13	0.28
379	082495	1500	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

♦Note: Duration specified in hours. Values in boldface type exceed one-year recurrence frequency.


ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES